

A STREET & SMITH PUBLICATION

ASTOUNDING

REG. U.S. PAT. OFF.

Science Fiction

MAY



BEGGARS
IN
VELVET

BY LEWIS PADGETT



AMBITIOUS ENGINEERS

HAVE YOU HAD YOUR COPY OF "ENGINEERING OPPORTUNITIES?"

Whatever your age or experience—whether you are one of the "old school," or a newcomer to Engineering anxious to hold your position under post-war conditions—you must read this highly informative guide to the best paid Engineering posts.

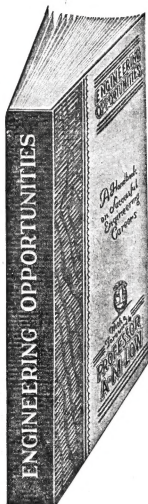
The Handbook contains, among other intensely interesting matter, particulars of B.Sc., A.M.I.C.E., A.M.I.Mech.E., A.M.I.E.E., A.M.I.A.E., A.M.I.P.E., A.M.Brit.I.R.E., CITY AND GUILDS, CIVIL SERVICE and other important Engineering Examinations; outlines courses in all branches of CIVIL, MECHANICAL ELECTRICAL, AUTOMOBILE, RADIO, TELEVISION, AERONAUTICAL and PRODUCTION ENGINEERING, DRAUGHTSMANSHIP, GOVERNMENT EMPLOYMENT, BUILDING and PLASTICS (the great peacetime careers), MATRICULATION, etc., and explains the unique advantages of our Employment Department.

WE DEFINITELY GUARANTEE "NO PASS — NO FEE"

If you are earning less than £10 a week, you cannot afford to miss reading "ENGINEERING OPPORTUNITIES"; it tells you everything you want to know to secure your future and describes many chances you are now missing. In your own interests we advise you to write for your copy of this enlightening guide to well-paid posts NOW—FREE.

BRITISH INSTITUTE OF ENGINEERING TECHNOLOGY
319 SHAKESPEARE HOUSE, 17, 18 & 19 STRATFORD PLACE, LONDON, W.1

THE B.I.E.T. IS THE LEADING INSTITUTE OF ITS KIND IN THE WORLD



ASTOUNDING

SCIENCE-FICTION

The editorial contents of this magazine are protected by copyright and cannot be reprinted without the publishers' permission.

Vol. V, No. 4 (British Edition)

May 1946

Contents

Novelettes

BEGGARS IN VELVET Lewis Padgett . . 2

TROUBLE TIMES TWO George O. Smith. 32

Short Stories

ORDERS Malcolm Jameson 25

A MATTER OF LENGTH. Ross Rocklynne . 44

THE PLANTS Murray Leinster . 55

All stories in this magazine are fiction. No actual persons are designated either by name or character. Any similarity is coincidental.



BEGGARS IN VELVET

By LEWIS PADGETT

The Baldies lived always in the shadow of danger; mutations such as they were naturally hated by the normal humans—and to make matters worse, the paranoid members of their own type were on the warpath! And no one could know when they would be betrayed—

I.

It was like stepping on a snake. The thing concealed in fresh, green grass, squirmed underfoot and turned and struck venomously. But the thought was not that of reptile or beast; only man was capable of the malignance that was, really, a perversion of intellect.

Burkhalter's dark face did not change; his easy stride did not alter. But his mind had instantly drawn back from that blind malice, alert and ready, while all through the village Baldies paused imperceptibly in their work or conversation as their minds touched Burkhalter's.

No human noticed.

Under bright morning sunlight Redwood Street curved cheerful and friendly before Burkhalter. But a breath of uneasiness slipped along it, the same cool, dangerous wind that had been blowing for days through the thoughts of every telepath in Sequoia. Ahead were a few early shoppers, some children on their way to school, a group gathered outside the barber shop, one of the doctors from a hospital.

Where is he?

The answer came swiftly. *Can't locate him. Near you, though—*

Someone—a woman, the overtones of her thought showed—sent a message tinged with emotional confusion, almost hysterical. *One of the patients from the hospital—*

Instantly the thoughts of the others closed reassuringly around her, warm with friendliness and comfort. Even Burkhalter took time to send a clear thought of unity. He recognized among the others the cool, competent personality of Duke Heath, the Baldy priest-medic, with its subtle psychological shadings that only another telepath could sense.

It's Selfridge, Heath told the woman, while other Baldies listened. He's just drunk. I think I'm nearest, Burkhalter. I'm coming.

A helicopter curved overhead its freight-gliders swinging behind it, stabilized by their gyroscopes. It swept over the western ridge and was gone toward the Pacific. As its humming died, Burkhalter could hear the muffled roar of the cataract up the valley. He was vividly conscious of the waterfall's feathery whiteness plunging down the cliff of the slopes of pine and fir and redwood around Sequoia, of the distant noise of the cellulose mills. He focused on these clean, familiar things to shut out the sickly foulness that blew from Selfridge's mind to his own. Sensibility and sensitivity had gone hand in hand with the Baldies, and Burk-

halter had wondered more than once how Duke Heath managed to maintain his balance in view of the man's work among the psychiatric patients at the hospital. The race of Baldies had come too soon; they were not aggressive; but race-survival depended on competition.

He's in the tavern, a woman's thought said. Burkhalter automatically jerked away from the message; he knew the mind from which it came. Logic told him instantly that the source didn't matter—in this instance. Barbara Pell was a paranoid; therefore an enemy. But both paranoids and Baldies were desperately anxious to avoid any open break. Though their ultimate goals lay worlds apart, yet their paths sometimes paralleled.

But already it was too late. Fred Selfridge came out of the tavern, blinked against the sunlight, and saw Burkhalter. The trader's thin, hollow-cheeked face twisted into a sour grin. The blurred malignance of his thought drove before him as he walked toward Burkhalter, and one hand kept making little darts toward the misericordia swung at his belt.

He stopped before Burkhalter, blocking the Baldy's progress. His grin broadened.

Burkhalter had paused. A dry panic tightened his throat. He was afraid, not for himself, but for his race, and every Baldy in Sequoia knew that—and watched.

He said "Morning, Fred."

Selfridge hadn't shaved that morning. Now he rubbed his stubbled chin and let his eyelids droop. "Mr. Burkhalter," he said. "*Consul* Burkhalter. Good thing you remembered to wear a cap this morning. Skinheads catch cold pretty easy."

Play for time, Duke Heath ordered. *I'm coming. I'll fix it.*

"I didn't pull any wires to get this job, Fred," Burkhalter said. "The Towns made me consul. Why blame me for it?"

"You pulled wires, all right," Selfridge said. "I know graft when I see it. You were a schoolteacher from Modoc or some hick town. What the devil do you know about Hedgehounds?"

"Not as much as you do," Burkhalter admitted. "You've had the experience."

"Sure. Sure I have. So they take a half-baked teacher and make him consul to the Hedgehounds. A greenhorn who doesn't even know those bichos have got cannibal tribes. I traded with the woodsmen for thirty years, and I know how to handle 'em. Are you going to read 'em pretty little stories out of books?"

"I'll do what I'm told. I'm not the boss."

"No. But maybe your friends are. Connections! If I'd had the same connections you've got, I'd be sitting on my tail like you, pulling in credits for the same work. Only I'd do that work better—a lot better."

"I'm not interfering with your business," Burkhalter said. "You're still trading, aren't you? I'm minding my own affairs."

"Are you? How do I know what you tell the Hedgehounds?"

"My records are open to anybody."

"Yeah?"

"Sure. My job's just to promote peaceful relations with the Hedgehounds. Not to do any trading, except what *they* want—and then I refer 'em to you."

"It sounds fine," Selfridge said. "Except for one thing. You can read my mind and tell the Hedgehounds all about my private business."

Burkhalter's guard slipped; he couldn't have helped it. He had stood the man's mental nearness as long as he could, though it was like breathing foul air. "Afraid of that?" he asked, and regretted the words instantly. The voices in his mind cried: *Careful!*

Selfridge flushed. "So you do it after all, eh? All that fine talk about you skinheads respecting people's privacy—sure! No wonder you got the consulate! Reading minds—"

"Hold on," Burkhalter said. "I've never read a non-Baldy's mind in my life. That's the truth."

"Is it?" the trader sneered. "How the devil do I know if you're lying? But you can look inside my head and see if *I'm* telling the truth. What you Baldies need is to be taught your place, and for two coins I'd—"

Burkhalter's mouth felt stiff. "I don't duel" he said, with an effort. "I won't duel."

"Yellow," Selfridge said, and waited, his hand hovering over the misericordia's hilt.

And there was the usual quandary. No telepath could possibly lose a duel with a non-Baldy, unless he wanted to commit suicide. But he dared not win, either. The Baldies baked their own humble pie; a minority that lives on sufferance must not reveal its superiority, or it won't survive. One such incident might have breached the dyke the telepaths had painfully erected against the rising tide of intolerance.

For the dyke was too long. It embraced all of mankind. And it was impossible to watch every inch of that incredible levee of

custom, orientation and propaganda, though the basic tenets were instilled in each Baldy from infancy. Some day the dyke would collapse, but each hour of postponement meant the gathering of a little more strength—

Duke Heath's voice said "A guy like you, Selfridge, would be better off dead."

Sudden shock touched Burkhalter. He shifted his gaze to the priest-medic, remembering the subtle tension he had recently sensed under Heath's deep calm, and wondering if this was the blowoff. Then he caught the thought in Heath's mind and relaxed, though warily.

Beside the Baldy was Ralph Selfridge, a smaller, slighter edition of Fred. He was smiling rather sheepishly.

Fred Selfridge showed his teeth. "Listen, Heath," he snapped. "Don't try to stand on your position. You haven't got one. You're a surrogate. No skinhead can be a real priest or a medic."

"Sure they can," Heath said. "But they don't." His round, youthful face twisted into a scowl. "Listen to me—"

"I'm not listening to—"

"Shut up!"

Selfridge gasped in surprise. He was caught flat-footed, undecided whether to use his misericordia or his fists, and while he hesitated, Heath went on angrily.

"I said you'd be better off dead and I meant it! This kid brother of yours thinks you're such a hotshot he imitates everything you do. Now look at him! If the epidemic hits Sequoia, he won't have enough resistance to work up antibodies, and the young idiot won't let me give him preventive shots. I suppose he thinks he can live on whiskey like you!"

Fred Selfridge frowned at Heath, stared at his younger brother, and looked back at the priest-medic. He shook his head, trying to clear it.

"Leave Ralph alone. He's all right."

"Well, start saving for his funeral expenses," Heath said callously. "As a surrogate medic, I'll make a prognosis right now—*rigor mortis*."

Selfridge licked his lips. "Wait a minute. The kid isn't sick, is he?"

"There's an epidemic down toward Columbia Crossing," Heath said. "One of the new virus mutations. If it hits us here, there'll be trouble. It's a bit like tetanus, but avertin's no good. Once the nerve centers are hit, nothing can be done. Preventive shots will help a lot, especially when a man's

got the susceptible blood-type—as Ralph has."

Burkhalter caught a command from Heath's mind.

"You could use some shots yourself, Fred," the priest-medic went on. "Still, your blood type is B, isn't it? And you're tough enough to throw off an infection. This virus is something new, a mutation of the old flu bug—"

He went on. Across the street someone called Burkhalter's name, and the consul slipped away, unnoticed except for a parting glare from Selfridge.

A slim, red-haired girl was waiting under a tree at the corner. Burkhalter grimaced inwardly as he saw he could not avoid her. He was never quite able to control the turmoil of feeling which the very sight or thought of Barbara Pell stirred up within him. He met her bright narrow eyes, full of pinpoints of light. He saw her round slimness that looked so soft and would, he thought, be as hard to the touch as her mind was hard to the thought's touch. Her bright red wig, almost too luxuriant, spilled heavy curls down about the square, alert face to move like red Medusalocks upon her shoulders when she turned her head. Curiously, she had a redhead's typical face, high-cheekboned, dangerously alive. There is a quality of the red-haired that goes deeper than the hair, for Barbara Pell had, of course, been born as hairless as any Baldy.

"You're a fool," she said softly as he came up beside her. "Why don't you get rid of Selfridge?"

Burkhalter shook his head. "No. And don't you try anything."

"I tipped you off that he was in the tavern. And I got here before anybody else, except Heath. If we could work together—"

"We can't."

"Dozens of times we've saved you traitors," the woman said bitterly. "Will you wait until the humans stamp out your lives—"

Burkhalter walked past her and turned toward the pathway that climbed the steep ascent leading out of Sequoia. He was vividly aware of Barbara Pell looking after him. He could see her clearly as if he had eyes in the back of his head, her bright, dangerous face, her beautiful body, her bright, beautiful, insane thoughts—

For behind all their hatefulness, the paranoïds' vision was as beautiful and tempting as the beauty of Barbara Pell. Perilously tempting. A free world, where Baldies could

walk and live and think in safety, no longer bending the scope of their minds into artificial, cramping limits as once men bent their backs in subservience to their masters. A bent back is a humiliating thing, but even a serf's mind is free to range. To cramp the mind is to cramp the soul, and no humiliation could surpass the humiliation of that.

But there was no such world as the paranoids dreamed of. The price would be too high. What shall it profit a man, thought Burkhalter wryly, if he gain the whole world and lose his own soul? The words might first have been spoken in this connection and no other, so perfectly did they apply to it. The price must be murder, and whoever paid that price would automatically sully the world he bought with it until, if he were a normal creature, he could never enjoy what he had paid so high to earn. Burkhalter called up a bit of verse into his mind and savored again the bitter melancholy of the poet who wrote it perhaps more completely than the poet himself ever dreamed.

*I see the country, far away,
Where I shall never stand.
The heart goes where no footstep may,
Into the promised land.*

Barbara Pell's mind shot after him an angry, evil shaft of scorn and hatred. "You're a fool, you're all fools you don't deserve telepathy if you degrade it. If you'd only join us in—" The thought ceased to be articulate and ran suddenly, gloatingly red with spilled blood, reeking saltily of it, as if her whole mind bathed deliciously in the blood of all humans.

Burkhalter jerked his thoughts away from contact with hers, sickened. It isn't the end of free living they want any more, he told himself in sudden realization—it's the means they're lusting after now. They've lost sight of a free world. All they want is killing.

"Fool, fool, fool!" Barbara Pell's thoughts screamed after him. "Wait and see! Wait until—one times two is two, two times two is four, three times two—"

Burkhalter thought grimly. "They're up to something," and sent his mind probing gingerly past the sudden artificial barrier with which she had sought to blank out a thought even she realized was indiscreet. She fought the probing viciously. He sensed only vague, bloody visions stirring behind the barrier. Then she laughed without a sound and hurled a clear, terrible, paranoid thought at him, a picture of sickening clarity

that all but splashed in his face with its overrunning redness.

He drew his mind back with swiftness that was pure reflex. As safe to touch fire as thoughts like hers. It was the only way any paranoid could shut out the inquisitive thoughts of a nonparanoid when need arose. And of course, normally no Baldy would dream of probing uninvited into another mind. Burkhalter shuddered.

They were up to something. He must pass the episode on to those whose business it was to know about the paranoids. Barbara Pell's mind was not, in any case, likely to yield much information on secret plans. She was an executioner, not a planner. He withdrew his thoughts from her, fastidiously, shaking off the contamination as a cat shakes water from its feet.

He climbed the steep slope that led out of Sequoia to his home, deliberately shutting his mind from all things behind him. Fifteen minutes' walk brought him to the rustic log-and-plastic house built near the shadow of the West Canadian Forest. This was his consulate, and only the cabin of the Selfridge brothers lay farther out in the wilderness that stretched north to the Beaufort Sea that mingles with the Arctic Ocean.

By his desk a glowing red light indicated a message in the terminal of the pneumatic that stretched for six miles into the forest. He read it carefully. A delegation of Hedgehounds would arrive soon, representatives from three tribal groups. Well—

He checked supplies, televised the general store, and sat down behind his desk to wait. Heath would be along soon. Meanwhile he closed his eyes and concentrated on the fresh smell of pine that blew through the open windows. But the fresh, clean scent was sullied by vagrant thought currents that tainted the air.

Burkhalter shivered.

II.

SEQUOIA lay near the border of old Canada, now an immense wilderness that the forest had largely reclaimed. Cullulose by-products were its industry, and there was an immense psychiatric hospital, which accounted for the high percentage of Baldies in the village. Otherwise Sequoia was distinguished from the hundreds of thousands of other towns that dotted America by the recent establishment of a diplomatic station there, the consulate that would be a means of official contact with the wandering

tribes that retreated into the forests as civilization encroached. It was a valley town, bordered by steep slopes, with their enormous conifers and the white-water cataracts racing down from snowy summits. Not far westward, beyond the Strait of Georgia and Vancouver Island, lay the Pacific. But there were few highways; transport was aerial. And Communication was chiefly by teleradio.

Four hundred people, more or less, lived in Sequoia, a tight little semi-independent settlement, bartering its specialized products for shrimps and pompano from Lafitte; books from Modoc; beryllium-steel daggers and motor-plows from American Gun; clothing from Dempsey and Gee Eye. The Boston Textile mills were gone with Boston; that smoking, gray desolation had not changed since 1950, the year of the Blowup. But there was still plenty of room in America, no matter how much the population might increase; war had thinned the population. And as technology advanced so did improvements in reclamation of arid and unfertile land, and the hardier strains of the kudzu plant had already opened vast new tracts for farming. But agriculture was not the only industry. The towns specialized, never expanding into cities, but sending out spores that would grow into new villages—or, rather, reaching out like raspberry canes, to take root whenever they touched earth.

But each town was independent. No empire could grow. Decentralization had been the answer to the atomic bombs that were so easy to make, and of which each village had its cache. One helicopter could dust off a town, quite conclusively, but it had been decades since such a thing had happened. The psychology was simple and ruthlessly accurate. If one man has a sword, his opponent won't provoke a fight. Not until he has a pistol, is better armed.

But atomic bombs were the ultimate development. Modoc could dust off Lafitte—but then American Gun could dust off Modoc. And there was no defense possible.

But the towns spread, cell by cell. Only the blasted areas were shunned, the desolation that had been New York and Chicago and a hundred other cities, the lifeless wastes that held only abnormal life. After the Blowup, the fringes of the radioactive areas had caused the mutations of which the telepaths were the only survivors, aside from the occasional monsters—reptiles and harmless beasts—that still lived near the blasted areas. Until lately, there had been

human monsters as well, unsuccessful mutations warped physically or mentally by the radiations. But they had died out by now. Only the telepaths had bred true, and even there existed a cleavage; true Bald, and antisocial paranoid-type.

—*And some in velvet gown.*

But in 1950 no one knew that the beggars were coming to town, or that the Baldys' only chance for survival would lie in making themselves the equivalent of Franciscan friars. They were the minority. And minorities can easily arouse hatred, especially when it possesses the incalculable wealth of the telepathic function. From generation to generation of Baldies now the indoctrination had gone on; Seek no power. Let no non-telepath envy you. *No direct competition.*

They worked, had economic security, possessed the luxuries that every other man and woman in America owned. But their heritage was a menace as well as the greatest privilege any race on Earth has ever known.

They were beggars in velvet. And each Baldy knew that, inevitably, the day of the pogrom would come.

Burkhalter was deliberately not thinking of the red-haired woman when Duke Heath came in. The priest-medic caught the strained, negative mental picture, and nodded.

"Barbara Pell," he said. "I saw her." Both men blurred the surface of their minds. That couldn't mask their thoughts, but if any other brain began probing, there would be an instant's warning, during which they could take precautions. Necessarily, however, the conversation stayed oral rather than telepathic.

"They can smell trouble coming," Burkhalter said. "They've been infiltrating Sequoia lately, haven't they?"

"Yes, The minute you copped this consulate, they started to come in." Heath nibbled his knuckles. "In forty years the paranoids have built up quite an organization."

"Sixty years," Burkhalter said. "My grandfather saw it coming back in '82. There was a paranoid in Modoc—a lone wolf at the time but it was one of the first symptoms. And since then—"

"Well, they've grown qualitatively, not quantitatively. There are more true Baldies now than paranoids. Psychologically they're handicapped. They hate to inter-marry with non-Baldies. Whereas we do, and the dominant strain goes on—spreads out."

"For a while," Burkhalter said.

Heath frowned. "There's no epidemic at Columbia Crossing. I had to get Selfridge off your neck somehow, and he's got a strongly paternal instinct toward his brother. That did it—but not permanently. With that so-and-so, the part equals the whole. You got the consulate; he had a nice little racket gyping the Hedgehounds; he hates you—so he jumps on your most vulnerable point. Also, he rationalizes. He tells himself that if you didn't have the unfair advantage of being a Baldy, you'd never have landed the consulate."

"It was unfair."

"We had to do it," Heath said. "Non-Baldies mustn't find out what we're building up among the Hedgehounds. Some day the woods folk may be our only safety. If a non-Baldy had got the consulate—"

"I'm working in the dark," Burkhalter said. "All I know is that I've got to do what the Mutes tell me."

"I don't know any more than you do. The paranoids have their Power—that secret band of communications we can't tap—and only the Mutes have a method of fighting that weapon. Don't forget that, while we can't read a Mute's mind, the paranoids can't either. If you knew their secrets, your mind would be an open book—any telepath could read it."

Burkhalter didn't answer. Heath sighed and watched pine needles glittering in the sunlight outside the windows.

"It's not easy for me either," he said. "To be a surrogate. No non-Baldy has to be a priest as well as a medic. But I have to. The doctors up at the hospital feel more strongly about it than I do. They know how many psychotic cases have been cured because we can read minds. Meanwhile—" He shrugged.

Burkhalter was staring northward. "A new land is what we need," he said.

"We need a new world. Some day we'll get it."

A shadow fell across the door. Both men turned. A small figure was standing there, a fat little man with close-curling hair and mild blue eyes. The misericordia at his belt seemed incongruous, as though those pudgy fingers would fumble ludicrously with the hilt.

No Baldy will purposely read a non-telepath's mind, but there is an instinctive recognition between Baldies. So Burkhalter and Heath knew instantly that the stranger was a telepath—and then, on the heels of

that thought, came sudden, startled recognition of the emptiness where thought should be. It was like stepping on clear ice and finding it clear water instead. Only a few men could guard their minds thus. They were the Mutes.

"Hello," said the stranger, coming in and perching himself on the desk's edge. "I see you know me. We'll stay oral, if you don't mind. I can read your thoughts, but you can't read mine." He grinned. "No use wondering why, Burkhalter. If you knew, the paranoids would find out too. Now. My name's Ben Hobson." He paused. "Trouble, eh? Well, we'll kick that around later. First let me get this off my chest."

Burkhalter sent a swift glance at Heath. "There are paranoids in town. Don't tell me too much, unless—"

"Don't worry. I won't," Hobson chuckled. "What do you know about Hedgehounds?"

"Descendants of the nomad tribes that didn't join the villages after the Blowup. Gypsies. Woods folk. Friendly enough."

"That's right," Hobson said. "Now what I'm telling you is common knowledge, even among the paranoids. You should know it. We've spotted a few cells among the Hedgehounds—Baldies. It started by accident, forty years ago, when a Baldy named Linc Cody was adopted by Hedgehounds and reared without knowing his heritage. Later he found out. He's still living with the Hedgehounds, and so are his sons."

"Cody?" Burkhalter said slowly. "I've heard stories of the Cody—"

"Psychological propaganda. The Hedgehounds are barbarians. But we want 'em friendly and we want to clear the way, for joining them, if that ever becomes necessary. Twenty years ago we started building up a figurehead in the forests, a living symbol who'd be overtly a shaman and really a delegate for us. We used mumbo-jumbo. Linc Cody dressed up in a trick suit, we gave him gadgets, and the Hedgehounds finally developed the legend of the Cody—a sort of benevolent woods spirit who acts as supernatural monitor. They like him, they obey him, and they're afraid of him. Especially since he can appear in four places at the same time."

"Eh?" Burkhalter said.

"Cody had three sons," Hobson smiled. "It's one of them you'll see today. Your friend Selfridge has fixed up a little plot. You're due to be murdered by one of the Hedgehound chiefs when that delegation gets here. I can't interfere personally, but

the Cody will. It's necessary for you to play along. Don't give any sign that you expect trouble. When the Cody steps in, the chiefs will be plenty impressed."

Heath said, "Wouldn't it have been better not to tell Burkhalter what to expect?"

"No. For two reasons. He can read the Hedgehounds' minds—I give him carte blanche on that—and he must string along with the Cody. O.K., Burkhalter?"

"O.K.," the consul nodded.

"Then I'll push off." Hobson stood up, still smiling. "Good luck."

"Wait a minute," Heath said. "What about Selfridge?"

"Don't kill him. Either of you. You know no Baldy must ever duel a non-Baldy."

Burkhalter was scarcely listening. He knew he must mention the thought he had surprised in Barbara Pell's mind, and he had been putting off the moment when he must speak her hateful name, open the gates of his thoughts wide enough to let her image slip back in, beautiful image, beautiful slender body, bright and dangerous and insane mind—

"I saw one of the paranoids in town awhile ago," he said. "Barbara Pell. A nasty job, that woman. She let slip something about their plans. Covered up too fast for me to get much, but you might think about it. They're up to something planned for fairly soon, I gathered."

Hobson smiled at him. "Thanks. We're watching them. We'll keep an eye on the woman too. All right, then. Good luck."

He went out. Burkhalter and Heath looked at one another.

The Mute walked slowly down the path toward the village. His mouth was pursed as he whistled; his plump cheeks vibrated. As he passed a tall pine he abruptly unsheathed his dagger and sprang around the tree. The man lurking there was caught by surprise. Steel found its mark unerringly. The paranoid had time for only one desperate mental cry before he died.

Hobson wiped his dagger and resumed his journey. Under the close-cropped brown wig a mechanism, shaped like a skullcap, began functioning. Neither Baldy nor telepath could receive the signals Hobson was sending and receiving now.

"They know I'm here."

"Sometimes they do," a soundless voice came back. "They can't catch these modulated frequencies the helmets use, but they can notice the shield. Still, as long as none of 'em know why—"

"I just killed one."

"One less of the bichos," came the coldly satisfied response.

I think I'd better stay here for a while. Paranoids have been infiltrating. Both Heath and Burkhalter think so. There's some contingent plan I can't read yet; the paranoids are thinking about it only on their own band."

"Then stay. Keep in touch. What about Burkhalter?"

"What we suspected. He's in love with the paranoid Barbara Pell. But he doesn't know it."

Both shocked abhorrence and unwilling sympathy were in the answering thought. "I can't remember anything like this ever happening before. He can read her mind; he knows she's paranoid—"

Hobson smiled. "The realization of his true feelings would upset him plenty, Jerry. Apparently you picked the wrong man for this job."

"Not from Burkhalter's record. He's always lived a pretty secluded life, but his character's above reproach. His empathy standing was high. And he taught sociology for six years at New Yale."

"He taught it, but I think it remained remote. He's known Barbara Pell for six weeks now. He's in love with her."

"But how—even subconsciously? Baldies instinctively hate and distrust the paranoids."

Hobson reached Sequoia's outskirts and kept going, past the terraced square where the blocky, insulated power station sat. "So it's perverse," he told the other Mute. "Some men are attracted only to ugly women. You can't argue with a thing like that. Burkhalter's fallen in love with a paranoid, and I hope to heaven he never realizes it. He might commit suicide. Or anything might happen. This is—" His thought moved with slow emphasis. "This is the most dangerous situation the Baldies have ever faced. Apparently nobody's paid much attention to Selfridge's talk, but the damage has been done. People *have* listened. And non-Baldies have always mistrusted us. If there's a blow-off, we're automatically the scapegoats."

"Like that, Ben?"

"The pogrom may start in Sequoia."

Once the chess game had started, there was no way to stop it. It was cumulative. The paranoids, the warped twin branch of the parallel telepathic mutation, were not insane; there was a psychoneurotic pathology. They had only one basic delusion. They were the super race. On that founda-

tion they built their edifice of planetary sabotage.

Non-Baldies outnumbered them, and they could not fight the technology that flourished in the days of decentralization. But if the culture of the non-Baldies were weakened, wrecked—

Assassinations, deftly disguised as duels or accidents; secret sabotage in a hundred branches; propaganda, carefully sowed in the proper places—and civilization would have headed for a crack-up, except for one check.

The Baldies, the true, non-paranoid mutation, were fighting for the older race. They had to. They knew, as the blinded paranoids could not, that eventually the non-Baldies would learn of the chess game, and then nothing could stop a world-wide pogrom.

One advantage the paranoids had for a while—a specialized band on which they could communicate telepathically, a wave length which could not be tapped. Then, in 2022, a Baldy technician had perfected the scrambler helmets, with a high-frequency modulation that was equally untappable. As long as a Baldy wore such a helmet under his wig, his mind could be read only by another Mute.

So they came to be called, a small, tight group of exterminators, sworn to destroy the paranoids completely—in effect, a police force, working in secret and never doffing the helmets which shut them out from the complete rapport that played, so large a part in the psychic life of the Baldy race.

They had willingly given up a great part of their heritage. It was a curious paradox that only by strictly limiting their telepathic power could these few Baldies utilize their weapon against the paranoids. And what they fought for was the time of ultimate unification when the dominant mutation had become so numerically strong that in all the world, there would be no need for mental barriers or psychic embargoes.

Meanwhile the most powerful of the Baldy race, they could never know, except within a limited scope, the subtle gratification of the mental round-robins, when a hundred or a thousand minds would meet and merge into the deep, eternal peace that only telepaths can know.

They, too, were beggars in velvet.

III.

BURKHALTER said suddenly, "What's the matter with you, Duke?"

Heath didn't move. "Nothing."

"Don't give me that. Your thoughts are on quicksand."

"Maybe they are," Heath said. "The fact is, I need a rest. I love this work, but it does get me down sometimes."

"Well, take a vacation."

"Can't. We're too busy. Our reputation's so good we're getting cases from all over. We're one of the first mental sanitariums to go in for all-out Baldy psychoanalysis. It's been going on, of course, for years but *sub rosa*, more or less. People don't like the idea of Baldies prying into the minds of their relatives. However, since we started to show results—" His eyes lit up. "Even with psychosomatic illnesses we can help a lot, and mood disorders are our meat. The big question, you know, is *why*. Why they've been putting poison in the patient's food, why they watch him—and so forth. Once that question's answered fully, it usually gives the necessary clues. And the average patient's apt to shut up like a clam when the psychiatrist questions him. But—" Heath's excitement mounted, "this is the biggest thing in the history of medicine. There've been Baldies since 1955, and only now are the doctors opening their doors to us. Ultimate empathy. A psychotic locks his mind, so he's hard to treat. But we have the keys—"

"What are you afraid of?" Burkhalter asked quietly.

Heath stopped short. He examined his fingernails.

"It's not fear," he said at last. "It's occupational anxiety. Oh, the devil with that. Four-bit words. It's simpler, really; you can put it in the form of an axiom. You can't touch pitch without getting soiled."

"I see."

"Do you, Harry? It's only this, really. My work consists of visiting abnormal minds. Not the way an ordinary psychiatrist does it. I get into those minds. I see and feel their viewpoints. I know all their terrors. The invisible horror that waits in the dark for them isn't just a word to me. I'm sane, and I see through the eyes of a hundred insane men. Keep out of my mind for a minute, Harry." He turned away. Burkhalter hesitated.

"O.K.," Heath said, looking around. "I'm glad you mentioned this, though. Every so often I find myself getting entirely too empathic. Then I either take my counter up, or get in a round robin." For every Baldy, there was a deep, relaxing calm in the upper

air, where the continual subsensory bombardment of thoughts was lessened almost to the vanishing point. "I'll see if I can promote a hook-up tonight. Are you in?"

"Sure," Burkhalter said. Heath nodded casually and went out. His thought came back.

I'd better not be here when the Hedgehounds come. Unless you—

No, Burkhalter thought, I'll be all right.

O.K. Here's a delivery for you.

Burkhalter opened the door in time to admit the grocer's boy, who had parked his trail car outside. He helped put the supplies away, saw that the beer would be sufficiently refrigerated, and pressed a few buttons that would insure a supply of pressure-cooked refreshments. The Hedgehounds were hearty eaters.

After that, he left the door open and relaxed behind his desk, waiting. It was hot in the office; he opened his collar and made the walls transparent. Air conditioning began to cool the room, but sight of the broad valley below was equally refreshing. Tall pines rippled their branches in the wind.

It was not like New Yale. That had been one of the larger towns. Only the technological villages covered larger areas, and that was a matter of necessity; chemists and physicists need plenty of room to provide a margin of safety. But New Yale was intensely specialized in education. Sequoia, with its great hospital and its cellulose industry, was more of a complete, rounded unit. Isolated from the rest of the world except by air and television, it lay clean and attractive, sprawling in white and green and pastel plastics around the swift waters of the river that raced down seaward.

Burkhalter locked his hands behind his neck and yawned. He felt inexplicably fatigued, as he had felt from time to time for several weeks. Not that this work was hard; on the contrary. But reorientation to his new job wouldn't be quite as easy as he had expected. In the beginning he hadn't anticipated these wheels within wheels.

Barbara Pell, for example. She was dangerous. She, more than any of the others, perhaps, was the guiding spirit of the Sequoia paranoids. Not in the sense of planned action, no. But she ignited, like a flame. She is a born leader. And there were uncomfortably many paranoids here now. They had infiltrated—superficially with good reason, on jobs or errands or vacations; but the town was crammed with them, comparatively speaking. The nontelepaths still out-

numbered both Baldies and paranoids as they did on a larger scale all over the world—

He remembered his grandfather, Ed Burkhalter. If any Baldy had ever hated the paranoids, Ed Burkhalter had. And presumably with good reason, since one of the first paranoid plots—a purely individual attempt then—had indirectly tried to indoctrinate the mind of Ed's son, Harry Burkhalter's father. Oddly, Burkhalter remembered his grandfather's thin, harsh face more vividly than his father's gentler one.

He yawned again, trying to immerse himself in the calm of the vista beyond the windows. Another world? Perhaps only in deep space could a Baldy ever be completely free from those troubling half-fragments of vagrant thoughts that he sensed even now. And without that continued distraction, with one's mind utterly unhampered—he stretched luxuriously, trying to imagine the feeling of his body without gravity, and extending that parallel to his mind. But it was impossible.

The Baldies had been born before their time, of course—an artificially hastened mutation caused by radio-activity acting on human genes and chromosomes. Thus their present environment was wrong. Burkhalter toyed idly with the concept of a deep-space race, each individual mind so delicately attuned that even the nearness of any alien personality would interfere with the smooth processes of perfect thought. Pleasant, but impractical. It would be a dead end. The telepaths weren't supermen, as the paranoids contended; at best they had only one fatally miraculous sense—fatal, because it had been mingled with common clay. With a genuine superman, telepathy would be merely one sense among a dozen other inconceivable ones.

Whereas Barbara Pell—the name and the face slid into his thoughts again, and the beautiful body, as dangerous and as fascinating as fire—whereas Barbara Pell, for instance, undoubtedly considered herself strictly super, like all the warped telepaths of her kind.

He thought of her bright, narrow gaze, and the red mouth with its sneering smile. He thought of the red curls moving like snakes upon her shoulders, and the red thoughts moving like snakes through her mind. He stopped thinking of her.

He was very tired. The sense of fatigue, all out of proportion to the energy he had expended, swelled and engulfed him. If the

Hedgehound chiefs weren't coming, it would be pleasant to take a copter up. The inclosing walls of the mountains would fall away as the plane lifted into the empty blue, higher and higher, till it hung in space above a blurred, featureless landscape, half-erased by drifting clouds. Burkhalter thought of how the ground would look, a misty dreamy Sime illustration, and, in his daydream, he reached out slowly to touch the controls. The copter slanted down, more and more steeply, till it was flashing suicidally toward a world that spread hypnotically, like a magically expanding carpet.

Someone was coming. Burkhalter blurred his mind instantly and stood up. Beyond the open door was only the empty forest, but now he could hear the faint, rising overtones of a song. The Hedgehounds, being a nation of nomads, sang as they marched, old tunes and ballads of memorable simplicity that had come down unchanged from before the Blowup, though the original meanings had been forgotten.

*Green grow the lilacs, all sparkling
with dew;*

*I'm lonely, my darling, since parting
from you—*

Ancestors of the Hedgehounds had hummed that song along the borders of Old Mexico, long before war had been anything but distantly romantic. The grandfather of one of the current singers had been a Mexican, drifting up the California coast, dodging the villages and following a lazy wanderlust that led him into the Canadian forests at last. His name had been Ramon Alvarez but his grandson's name was Kit Carson Alvers, and his black beard rippled as he sang.

*But by our next meeting I'll hope to
prove true,*

*And change the green lilacs for the
red, white and blue.*

There were no minstrels among the Hedgehounds—they were all minstrels, which is how folk songs are kept alive. Singing, they came down the path, and fell silent at sight of the consul's house.

Burkhalter watched. It was a chapter of the past come alive before his eyes. He had read of the Hedgehounds, but not until six weeks ago had he encountered any of the new pioneers. Their bizarre costumes still had power to intrigue him.

Those costumes combined functionalism with decoration. The buckskin shirts, that

could blend into a pattern of forest light and shade, were fringed with knotted tassels; Alvers had a coonskin cap, and all three men wore sandals, made of soft, tough kidskin. Sheathed knives were at their belts, hunting knives, plainer and shorter than the misericordias of the townsfolk. And their faces showed a rakehell vigor, a lean, brown independence of spirit that made them brothers. For generations now the Hedgehounds had been wresting their living from the wilderness with such rude weapons as the bow one of them had slung across his shoulder, and the ethics of duelling had never developed among them. They didn't duel. They killed, when killing seemed necessary—for survival.

Burkhalter came to the threshold. "Come in," he said. "I'm the consul—Harry Burkhalter."

"You got our message?" asked a tall, Scottish-looking chief with a bushy red beard. "That thing you got rigged up in the woods looked tetchy."

"The message conveyor? It works, all right."

"Fair enough. I'm Cobb Mattoon. This here's Kit Carson Alvers, and this un's Umpire Vine." Vine was clean-shaven, a barrel of a man who looked like a bear, his sharp brown eyes slanting wary glances all around. He gave a taciturn grunt and shook hands with Burkhalter. So did the others. As the Baldy gripped Alvers' palm, he knew that this was the man who intended to kill him.

He made no sign. "Glad you're here. Sit down and have a drink. What'll you have?"

"Whiskey," Vine grunted. His enormous hand smothered the glass. He grinned at the siphon, shook his head, and gulped a quantity of whiskey that made Burkhalter's throat smart in sympathy.

Alvers, too, took whiskey; Mattoon drank gin, with lemon. "You got a smart lot of drinks here," he said, staring at the bar. Burkhalter had swung out. "I can make out to spell some of the labels, but—what's that?"

"Drambuie. Try it?"

"Sure," Mattoon said, and his red-haired throat worked. "Nice stuff. Better than the corn we cook up in the woods."

"If you walked far, you'll be hungry," Burkhalter said. He pulled out the oval table, selected covered dishes from the conveyor belt, and let his guests help themselves. They fell to without ceremony.

Alvers looked across the table. "You one of them Baldies?" he asked suddenly.

Burkhalter nodded. "Yes, I am. Why?"

Mattoon said, "So you're one of 'em." He was frankly staring. "I never seen a Baldy right close up. Maybe I have at that, but with the wigs you can't tell, of course."

Burkhalter grinned as he repressed a familiar feeling of sick distaste. He had been stared at before, and for the same reason.

"Do I look like a freak, Mr. Mattoon?"

"How long you been consul?" Mattoon asked.

"Six weeks."

"O.K.," the big man said, and his voice was friendly enough, though the tone was harsh. "You oughta remember there ain't no Mistering with the Hedgehounds. I'm Cobb Mattoon. Cobb to my friends, Mattoon to the rest. Nope, you don't look like no freak. Do people figger you Baldies are all sports?"

"A good many of them," Burkhalter said.

"One thing," Mattoon said, picking up a chop bone, "in the woods, we pay no heed to such things. If a guy's born funny, we don't mock him for that. Not so long as he sticks to the tribe and plays square. We got no Baldies among us, but if we did, I kind of think they might get a better deal than they do now."

Vine grunted and poured more whiskey. Alvers' black eyes were fixed steadily on Burkhalter.

"You readin' my mind?" Mattoon demanded. Alvers drew in his breath sharply.

Without looking at him, Burkhalter said, "No. Baldies don't. It isn't healthy."

"True enough. Minding your own business is a plenty good rule. I can see how you'd have to play it. Look. This is the first time we come down here Alvers and Vine and me. You ain't seen us before. We heard rumors about this consulate—" He stumbled over the unfamiliar word. "Up to now, we traded with Selfridge sometimes, but we didn't have contact with townsfolk. You know why."

Burkhalter knew. The Hedgehounds had been outcastes, shunning the villages, and sometimes raiding them. They were outlaws. "But now a new time's coming. We can't live in the towns; we don't want to. But there's room enough for everybody. We still don't see why they set up these con-consulates; still, we'll string along. We got a word."

Burkhalter knew about that, too. It was the Cody word, whispered through the

Hedgehound tribes—a word they would not disobey.

He said, "Some of the Hedgehound tribes ought to be wiped out. Not many. You kill them yourselves, whenever you find them—"

"Th' cannibals," Mattoon said. "Yeah. We kill them."

"But they're a minority. The main group of Hedgehounds have no-quarrel with the townsfolk. And vice versa. We want to stop the raids."

"How do you figger on doin' that?"

"If a tribe has a bad winter, it needn't starve. We've methods of making foods. It's a cheap method. We can afford to let you have grub when you're hungry."

Vine slammed his whiskey glass down on the table and snarled something. Mattoon patted the air with a large palm.

"Easy, Umpire. He don't know . . . listen, Burkhalter. The Hedgehounds raid sometimes, sure. They hunt, and they fight for what they get. But they don't beg."

"I'm talking about barter," Burkhalter said. "Fair exchange. We can't set up force shields around every village. And we can't use Eggs on nomads. A lot of raids would be a nuisance, that's all. There haven't been many raids so far; they've been lessening every year. But why should there be any at all? Get rid of the motivation and the effect's gone too."

Unconsciously he probed at Alvers' mind. There was a thought there, a sly crooked hungry thought, the avid alertness of a carnivore—and the concept of a hidden weapon. Burkhalter jerked back. He didn't want to know. He had to wait for the Cody to move though the temptation to provoke an open battle with Alvers was dangerously strong. Yet that would only antagonize the other Hedgehounds; they couldn't read Vine's mind as Burkhalter could.

"Barter what?" Vine grunted.

Burkhalter had the answer ready. "Peits. There's a demand for them. They're fashionable." He didn't mention that it was an artificially created fad. "Furs, for one thing. And—"

"We ain't Red Indians" Mattoon said. "Look what happened to them! There ain't nothing we need from townsfolk, except when we're starving. Then—well, maybe we can barter."

"If the Hedgehounds unified—"

Alvers grinned. "In the old days," he said in a high, thin voice, "the tribes that unified got dusted off with the Eggs. We ain't unifying, brother!"

"He speaks fair, though," Mattoon said. "It makes sense. It was our granddaddies who had a feud with the villages. We've shaken down pretty well. My tribe ain't gone hungry for seven winters now. We migrate, we go where the pickin's are good and we get along."

"My tribe don't raid," Vine growled. He poured more whiskey.

Mattoon and Alvers had taken only two drinks; Vine kept pouring it down, but his capacity seemed unlimited. Now Alvers said, "It seems on the level. One thing I don't like. This guy's a Baldy."

Vine turned his enormous barrel of a torso and regarded Alvers steadily. "What you got against Baldies?" he demanded.

"We don't know nothing about 'em. I heard stories—"

Vine said something rude. Mattoon laughed.

"You ain't polite, Kit Carson. Burkhalter's playin' host. Don't go throwing words around."

Alvers shrugged, glanced away, and stretched. He reached into his shirt to scratch himself—and suddenly the thought of murder hit Burkhalter like a stone from a sling-shot. It took every ounce of his will power to remain motionless as Alver's hand slid back into view, a pistol coming into sight with it.

There was time for the other Hedgehounds to see the weapon, but no time for them to interfere. The death-thought anticipated the bullet. A flare of blinding, crimson light blazed through the room. Something, moving like an invisible whirlwind, flashed among them; then, as their eyes adjusted, they stood where they had leaped from their chairs, staring at the figure who confronted them.

He wore a tight-fitting suit of scarlet, with a wide black belt, and an expressionless mask of silver covered his face. A blue-black beard emerged from under it and rippled down his chest. Enormous muscular development showed beneath the skin-tight garments.

He tossed Alver's pistol into the air and caught it. Then, with a deep, chuckling laugh, he gripped the weapon in both hands and broke the gun into a twisted jumble of warped metal.

"Break a truce, will you?" he said. "You little pipsqueak. What you need is the livin' daylight whaled outa you, Alvers."

He stepped forward and smashed the flat of his palm against Alvers' side. The sound

of the blow rang through the room. Alvers was lifted into the air and slammed against the further wall. He screamed once, dropped into a huddle, and lay there motionless.

"Git up," the Cody said. "You ain't hurt. Mebbe a rib cracked, that's all. If'n I'd smacked your head, I'd have broke your neck clean. Git up!"

Alvers dragged himself upright, his face dead white and sweating. The other two Hedgehounds watched, impassive and alert. "Deal with you later on. Mattoon. Vine. What you got to do with this?"

"Nuthin'." Mattoon said. "Nuthin', Cody. You know that."

The silver mask was impassive. "Lucky fer you I do. Now listen. What I say goes. Tell Alvers' tribe they'll have to find a new boss. That's all."

He stepped forward. His arms closed about Alvers, and the Hedgehound yelled in sudden panic. Then the red blaze flared out again. When it had died, both figures were gone.

"Got any more whiskey, Burkhalter?" Vine said.

IV.

THE Cody was in telepathic communication with the Mute, Hobson. Like the other three Codys, this one wore the same modulated-frequency helmet as the Mutes; it was impossible for any Baldy or paranoid to tune in on that scrambled camouflaged wave length.

It was two hours after sundown.

Alvers is dead, Hobson. Telepathy has no colloquialisms that can be expressed in language-symbols.

Necessary?

Yes. Absolute obedience to the Cody—a curiously mingled four-in-one concept—is vital. Nobody can be allowed to defy the Cody and get away with it.

Any repercussions?

None. Mattoon and Vine are agreeable. They got along with Burkhalter. What's wrong with him, Hobson?

The moment the question was asked, the Cody knew the answer. Telepaths have no secrets but subconscious ones—and the Mute helmet can even delve a little into the secret mind.

In love with a paranoid? The Cody was shocked.

He doesn't know it. He mustn't realize it yet. He'd have to reorient; that would take

time; we can't afford to have him in the side lines just now. Trouble's bound to pop.

What?

Fred Selfridge. He's drunk. He found out the Hedgehound chiefs visited Burkhalter today. He's afraid his trading racket is being cut from under him. I've told Burkhalter to stay out of sight.

I'll stay near here, then in case I'm needed. I won't go home yet. Briefly Hobson caught sight of what home meant to the Cody; a secret valley in the Canadian wilderness, its whereabouts known only to wearers of the helmets, who could never betray it inadvertently. It was there that the technicians among the Baldies sent their specialized products—via the Mutes. Products which had managed to build up a fully equipped headquarters in the heart of the forest, a centralization, it was true, but one whose whereabouts were guarded very thoroughly from the danger of discovery by either friend or enemy. From that valley laboratory in the woods came the devices that made the Cody the legendary figure he was among the Hedgehounds—a Paul Bunyan who combined incredible physical prowess with pure magic. Only such a figure could have commanded the respect and obedience of the woods runners.

Is Burkhalter safely hidden, Hobson? Or can I—

He's hidden. There's a round robin on, but Selfridge can't trace him through that.

O.K. I'll wait.

The Cody broke off. Hobson sent his thought probing out, across the dark miles, to a dozen other Mutes, scattered across the continent from Niagara to Salton. Each one of them was ready for the underground mobilization that might be necessary at any moment now.

It had taken ninety years for the storm to gather; its breaking would be cataclysmic.

Within the circle of the round robin was quiet, complete peace that only a Baldy can know. Burkhalter let his mind slip into place among the others, briefly touching and recognizing friends as he settled into that telepathic closed circuit. He caught the faintly troubled unrest from Duke Heath's thoughts; then the deep calm of rapport swallowed them both.

At first, on the outer fringes the psychic pool, there were ripples and currents of mild disturbance, the casual distresses that are inevitable in any gregarious society, and especially among the hypersensitive Baldies. But the purge of the ancient custom of the

confessional quickly began to be effective. There can be no barriers between Baldies. The basic unit of the family is far more complete than among non-telepaths, and by extension, the entire Baldy group were bound together with ties no less strong because of their intangible subtlety.

Trust and friendship: these things were certain. There could be no distrust when the tariff wall of language was eliminated. The ancient loneliness of any highly specialized, intelligent organism was mitigated in the only possible way; by a kinship closer even than marriage, and transcending it.

Any minority group as long as it maintains its specialized integrity, is automatically handicapped. It is suspect. Only the Baldies, in all social history, had been able to mingle on equal terms with the majority group and still retain the close bond of kinship. Which was paradoxical, for the Baldies, perhaps, were the only ones who desired racial assimilation. They could afford to, for the telepathic mutation was dominant: the children of Baldy father and nontelepathic mother—or vice versa—are Baldies.

But the reassurance of the round robins was needed; they were a symbol of the passive battle the Baldies had been fighting for generations. In them the telepaths found complete unity. It did not, and never would, destroy the vital competitive instinct; rather, it encouraged it. There was give and take. And, too, it was religion of the purest kind.

In the beginning, with no senses that non-Baldies can quite understand, you touched the minds of your friends, delicately, sensitively. There was a place for you, and you were welcomed. Slowly, as the peace spread, you approached the center, that quite indescribable position in space time that was a synthesis of intelligent, vital minds. Only by analogy can that locus even be suggested.

It is half-sleep. It is like the moment during which consciousness returns sufficiently so that you know you are not awake, and can appreciate the complete calm relaxation of slumber. If you could retain consciousness while you slept—that might be it.

For there was no drugging. The sixth sense is tuned to its highest pitch, and it intermingles with and draws from the other senses. Each Baldy contributes. At first the troubles and disturbances, the emotional unbalances and problems are cast into the pool, examined, and dissolved in the crystal water of the rapport. Then, cleansed and strengthened, the Baldies approach the center, where the minds blend

into a single symphony. Nuances of color one member has appreciated, shadings of sound and light and feeling, each one is a grace note in orchestration. And each note is three-dimensional, for it carries with it the Baldy's personal, individual reaction to the stimulus.

Here a woman remembered the sensuous feel of soft velvet against her palm, with its corresponding mental impact. Here a man gave the crystal-sharp pleasure of solving a difficult mathematical equation, and intellectual counterpoint to the lower-keyed feeling of velvet. Step by step the rapport built up, until there seemed but a single mind, working in perfect cohesion, a harmony without false notes.

Then this single mind began building. It began to think. It was a psychic colloid, in effect, an intellectual giant given strength and sanity by very human emotions and senses and desires.

Then into that pellucid unity crashed a thought-message that for an instant made the minds cling together in a final desperate embrace in which fear and hope and friendship intermingled. The round robin dissolved. Each Baldy waited now, remembering Hobson's thought that said:

The pogrom's started.

He hadn't broadcast the message directly. The mind of a Mute, wearing his helmet, cannot be read except by another Mute. It was Duke Heath, sitting with Hobson in the moonlit grounds outside the hospital, who had taken the oral warning and conveyed it to the other Baldies. Now his thoughts continued to flash through Sequoia.

Come to the hospital. Avoid non-Baldies. If you're seen, you may be lynched.

In dozens of homes, eyes met in which the terror had leaped instantly to full flower. All over the world, in that moment, something electric sparked with unendurable tension from mind to sensitive mind. No non-Baldy noticed. But, with the speed of thought, the knowledge girdled the planet.

From the thousands of Baldies scattered through the villages, from helicopter and surface car, came a thought of reassurance. *We are one, it said. We are with you.*

That—from the Baldies. From the paranoids, fewer in number, came a message of hatred and triumph. *Kill the hairy men!*

But no nontelepaths outside Sequoia knew what was happening.

There was an old plastic house near the edge of town where Burkhalter had been hiding. He slipped out of a side door now

into the cool quiet of the night. Overhead, a full moon hung yellow. A fan of diffused light reached upward from Redwood Street in the distance, and dimmer paths in the air marked the other avenues. Burkhalter's muscles were rigid. He felt his throat tense with near-panic. Generations of anticipation had built up a violent phobia in every Baldy, and now that the day had come—

Barbara Pell came dazingly into his thoughts, and as his mind recalled her, so her mind touched his, wild and fiery, gloating with a triumph his whole being drew back from, while against all judgment something seemed to force him to receive her message.

He's dead, Burkhalter, he's dead! I've killed Fred Selfridge! The word is "kill," but in the mind of the paranoid it was not a word or a thought, but a reeking sensation of triumph, wet with blood, a screaming thought which the sane mind reels from.

You fool! Burkhalter shouted at her across the distant streets, his mind catching a little of her wildness so that he could not wholly control it. *You crazy fool, did you start this?*

He was starting out to get you. He was dangerous. His talk would have started the pogrom anyhow—people were beginning to think—

It's got to be stopped!

It will be! Her thought had a terrible confidence. We've made plans.

What happened?

Someone saw me kill Selfridge. It's the brother, Ralph, who touched things off—the old lynch law. Listen. Her thought was giddy with triumph.

He heard it then, the belling yell of the mob, far away, but growing louder. The sound to Barbara Pell's mind was fuel to a flame. He caught terror from her, but a perverted terror that lusted after what it feared. The same fury of bloodthirst was in the crowd's yell and in the red flame which was Barbara Pell's mad mind. They were coming near her, nearer—

For a moment Burkhalter saw a woman running down a dim street, stumbling, recovering, racing on with a lynch mob bay- ing at her heels.

A man—a Baldy—dashed out into the path of the crowd. He tore off his wig and waved it at them. Ralph Selfridge, his thin young face dripping with sweat, shrieked in wordless hatred and turned the tide after this new quarry. The woman ran on into the darkness.

They caught the man. When a Baldy dies, there is a sudden gap in the ether, a dead emptiness that no telepath will willingly touch with his mind. But before that blankness snapped into being, the Baldy's thought of agony blazed through Sequoia with stunning impact, and a thousand minds reeled for an instant before it.

Kill the hairy men! shrieked Barbara Pell's thoughts, ravenous and mad. This was what the furies were. When a woman's mind lets go, it drops into abysses of sheer savagery that a man's mind never plumbs. The woman from time immemorial has lived closer to the abyss than the male—has had to, for the defense of her brood. The primitive woman cannot afford scruples. Barbara Pell's madness now was the red, running madness of primal force. And it was a fiery thing that ignited something in every mind it touched. Burkhalter felt little flames take hold at the edges of his thoughts and the whole fabric that was his identity shivered and drew back. But he felt in the ether other minds, mad paranoid minds reach out toward her and cast themselves ecstatically into the holocaust.

Kill them, kill—kill! raved her mind.

Everywhere? Burkhalter wondered, dizzy with the pull he felt from that vortex of exultant hate. *All over the world, tonight? Have the paranoids risen everywhere, or only in Sequoia?*

And then he sensed suddenly the ultimate hatefulness of Barbara Pell. She answered the thought, and in the way she answered he recognized how fully evil the red-haired woman was. If she had lost herself utterly in this flaming intoxication of the mob he would still, he thought, have hated her, but he need not have despised her.

She answered quite coolly, with a part of her mind detached from the ravening fury that took its fire from the howling mob and tossed it like a torch for the other paranoids to ignite their hatred from.

She was an amazing and complex woman, Barbara Pell. She had a strange, inflammatory quality which no woman, perhaps, since Jeanne d'Arc had so fully exercised. But she did not give herself up wholly to the fire that had kindled within her at the thought and smell of blood. She was deliberately casting herself into that blood-path, deliberately wallowing in the frenzy of her madness. And as she wallowed, she could still answer with a coolness more terrible than her ardor.

No, only in Sequoia, said the mind that

an instant before had been only a blind raving exhortation to murder. *No human must live to tell about it,* she said in thought-shapes that dripped cold venom more burning than the hot bloodlust in her broadcast thoughts. *We hold Sequoia. We've taken over the airfields and the power station. We're armed. Sequoia is isolated from the rest of the world. The pogrom's broken loose here—only here. Like a cancer. It must be stopped here.*

How?

How do you destroy any cancer? Venom bubbled in the thought.

Radium, Burkhalter thought. Radio-activity. The atomic bombs—

Dusting off? he wondered.

A burning coldness of affirmation answered him. *No human must live to tell about it. Towns have been dusted off before—by other towns. Pinewood may get the blame this time—there's been rivalry between it and Sequoia.*

But that's impossible. If the Sequoia tele-audios have gone dead—

*We're sending out faked messages. Any copters coming in will be stopped. But we've got to finish it off fast. If one human escapes—*Her thoughts dissolved into inhuman, inarticulate yammering, caught up and echoed avidly by a chorus of other minds.

Burkhalter shut off the contact sharply. He was surprised, a little, to find that he had been moving toward the hospital all during the interchange, circling through the outskirts of Sequoia. Now he heard with his conscious mind the distant yelling that grew loud and faded again almost to silence, and then swelled once more. The mindless beast that ran the streets could be sensed tonight even by a nontelepath.

He moved silently through the dark for awhile sick and shaken as much by his contact with a paranoid mind as by the threat of what had happened and what might still come.

Jeanne d'Arc, he thought. She had it too, that power to inflame the mind. She, too, had heard—"voices?" Had she perhaps been an unwitting telepath born far before her time? But at least there had been sanity behind the power she exercised. With Barbara Pell—

As her image came into his mind again her thought touched him, urgent, repellently cool and controlled in the midst of all this holocaust she had deliberately stirred up. Evidently something had happened to upset their plans, for—

Burkhalter, she called voicelessly. Burkhalter, listen. We'll co-operate with you.

We hadn't intended to, but—where is the Mute, Hobson?

I don't know.

The cache of Eggs has been moved. We can't find the bombs. It'll take hours before another load of Eggs can be flown here from the nearest town. It's on the way. But every second we waste increases the danger of discovery. Find Hobson. He's the only mind we can't touch in Sequoia. We know no one else has hidden the bombs. Get Hobson to tell us where they are. Make him understand, Burkhalter. This isn't a matter affecting only us. If word of this gets out, every telepath in the world is menaced. The cancer must be cut before it spreads.

Burkhalter felt murderous thought-currents moving toward him. He turned toward a dark house, drifted behind a bush, and waited there till the mob had poured past, their torches blazing. He felt sick and hopeless. What he had seen in the faces of the men was horrible. Had this hatred and fury existed for generations under the surface—this insane mob-violence that could burst out against Baldies with so little provocation?

Common sense told him that the provocation had been sufficient. When a telepath killed a nontelepath, it was not duelling—it was murder. The dice were loaded. And for weeks now psychological propaganda had been at work in Sequoia.

The non-Baldies were not simply killing an alien race. They were out to destroy the personal devil. They were convinced by now that the Baldies were potential world-conquerors. As yet no one had suggested that the telepaths ate babies, but that was probably coming soon, Burkhalter thought bitterly.

Preview. Decentralization was helping the Baldies, because it made a temporary communication-embargo possible. The synapses that connected Sequoia to the rest of the world were blocked; they could not remain blocked forever.

He cut through a yard, hurdled a fence, and was among the pines. He felt an impulse to keep going, straight north, into the clean wilderness where this turmoil and fury could be left behind. But, instead, he angled south toward the distant hospital. Luckily he would not have to cross the river; the bridges would undoubtedly be guarded.

There was a new sound, discordant and hysterical. The barking of dogs. Animals,

as a rule, could not receive the telepathic thoughts of humans, but the storm of mental currents raging in Sequoia now had stepped up the frequency—or the power—to a far higher level. And the thoughts of thousands of telepaths, all over the world, were focused on the little village on the Pacific Slope.

Hark, hark! The dogs do bark!

The beggars are coming to town—

But there's another poem, he thought, trying to remember. Another one that fits even better. What is it—

The hopes and fears of all the years—

V.

THE mindless marking of the dogs was worst. It set the pitch of the yapping, mad savagery that washed up around the hospital like the rising waves of a neap tide. And the patients were receptive too; wet packs and hydrotherapy, and, in a few cases, restraining jackets were necessary.

Hobson stared through the one-way window at the village far below. "They can't get in here," he said.

Heath, haggard and pale, but with a new light in his eyes, nodded at Burkhalter.

"You're one of the last to arrive. Seven of us were killed. One child. There are ten others still on their way. The rest—safe here."

"How safe?" Burkhalter asked. He drank the coffee Heath had provided.

"As safe as anywhere. This place was built so irresponsible patients couldn't get out. Those windows are unbreakable. It works both ways. The mob can't get in. Not easily, anyhow. We're fireproof, of course."

"What about the staff? The non-Baldies, I mean."

A gray-haired man seated at a nearby desk stopped marking a chart to smile wryly at Burkhalter. The consul recognized him: Dr. Wayland, chief psychiatrist.

Wayland said, "The medical profession has worked with Baldies for a long time, Harry. Especially the psychologists. If any non-Baldy can understand the telepathic viewpoint, we do. We're noncombatants."

"The hospital work has to go on," Heath said. "Even in the face of this. We did something rather unprecedented, though. We read the minds of every non-Baldy within these walls. Three men on the staff had a preconceived dislike of Baldies, and sympathized with the lynchings. We asked them to leave. There's no danger of Fifth Column work here now."

Hobson said slowly, "There was another man—Dr. Wilson. He went down to the village and tried to reason with the mob."

Heath said, "We got him back here. He's having plasma pumped into him now."

Burkhalter set down his cup. "All right. Hobson, you can read my mind. How about it?"

The Mute's round face was impassive. "We had our plans, too. Sure, I moved the Eggs. The paranoids won't find 'em now."

"More Eggs are being flown in. Sequoia's going to be dusted off. You can't stop that."

A buzzer rang; Dr. Wayland listened briefly to a transmitted voice, picked up a few charts and went out. Burkhalter jerked his thumb toward the door.

"What about him? And the rest of the staff? They know, now."

Heath grimaced. "They know more than we wanted them to know. Until tonight, no nontelepath has even suspected the existence of the paranoid group. We can't expect Wayland to keep his mouth shut about this. The paranoids *are* a menace to non-Baldies. The trouble is, the average man won't differentiate between paranoids and Baldies. Are those people down there"—he glanced toward the window—"are they drawing the line?"

"It's a problem," Hobson admitted. "Pure logic tells us that no non-Baldy must survive to talk about this. But is that the answer?"

"I don't see any other way," Burkhalter said unhappily. He thought suddenly of Barbara Pell and the Mute gave him a sharp glance.

"How do you feel about it Heath?"

The priest-medic walked to the desk and shuffled case histories. "You're the boss, Hobson. I don't know. I'm thinking about my patients. Here's Andy Pell. He's got Alzheimer's disease—early senile psychosis. He's screwed up. Can't remember things very well. A nice old guy. He spills food on his shirt, he talks my ear off, and he makes passes at the nurses. He'd be no loss to the world, I suppose. Why draw a line, then? If we're going in for killing, there can't be any exceptions. The non-Baldy staff here can't survive either."

"That's the way you feel?"

Heath made a sharp, angry gesture. "No! It isn't the way I feel! Mass murder would mean canceling the work of ninety years, since the first Baldy was born. It'd mean putting us on the same level as the paranoids. Baldies don't kill."

"We kill paranoids."

"There's a difference. Paranoids are on

equal terms with us. And . . . oh, I don't know, Hobson. The motive would be the same—to save our race. But somehow one doesn't kill a non-Baldy."

"Even a lynch mob?"

"They can't help it," Heath said quietly. "It's probably casuistry to distinguish between paranoids and non-Baldies but there *is* a difference. It would mean a lot of difference to us. We're not killers."

Burkhalter's head drooped. The sense of unendurable fatigue was back again. He forced himself to meet Hobson's calm gaze.

"Do you know any other reason?" he asked.

"No," the Mute said. "I'm in communication, though. We're trying to figure out a way."

Heath said, "Six more got here safely. One was killed. Three are still on their way."

"The mob hasn't traced us to the hospital yet," Hobson said. "Let's see. The paranoids have infiltrated Sequoia in considerable strength, and they're well armed. They've got the airfields and the power station. They're sending out faked teletext messages so no suspicion will be aroused outside. They're playing a waiting game; as soon as another cargo of Eggs gets here, the paranoids will beat it out of town and erase Sequoia. And us, of course."

"Can't we kill the paranoids? You haven't any compunctions about eliminating them, have you, Duke?"

Heath shook his head and smiled; Hobson said, "That wouldn't help. The problem would still exist. Incidentally, we could intercept the copter flying Eggs here, but that would just mean postponement. A hundred other copters would load Eggs and head for Sequoia; some of them would be bound to get through. Even fifty cargoes of bombs would be too dangerous. You know how the Eggs work."

Burkhalter knew, all right. One Egg would be quite sufficient to blast Sequoia entirely from the map.

Heath said, "Justified murder doesn't bother me. But killing non-Baldies—if I had any part in that, the mark of Cain wouldn't be just a symbol. I'd have it on my forehead—or inside my head, rather. Where any Baldy could see it. If we could use propaganda on the mob—"

Burkhalter shook his head. "There's no time. And even if we did cool off the lynchers, that wouldn't stop word of this from getting around. Have you listened in on the catch-phrases, Duke?"

"The mob?"

"Yeah. They've built up a nice personal devil by now. We never made any secret of our round robins, and somebody had a bright idea. We're polygamists. Purely mental polygamists, but they're shouting that down in the village now."

"Well," Heath said, "I suppose they're right. The norm is arbitrary, isn't it—automatically set by the power-group? Baldies are variants from that norm."

"Norms change."

"Only in crises. It took the Blowup to bring about decentralization. Besides, what's the true standard of values? What's right for non-Baldies isn't always right for telepaths."

"There's a basic standard of morals—"

"Semantics." Heath shuffled his case histories again. "Somebody once said that insane asylums won't find their true function till ninety percent of the world is insane. Then the sane group can just retire to the sanitariums." He laughed harshly. "But you can't even find a basic standard in psychoses. There's a lot less schizophrenia since the Blowup; most d. p. cases come from cities. The more I work with psycho patients, the less I'm willing to accept any arbitrary standards as the real ones. This man—" he picked up a chart "he's got a fairly familiar delusion. He contends that when he dies, the world will end. Well maybe, in this one particular case it's true."

"You sound like a patient, yourself," Burkhalter said succinctly.

Hobson raised a hand. "Heath, I suggest you administer sedatives to the Baldies here. Including us. Don't you feel the tension?"

The three were silent for a moment, telepathetically listening. Presently Burkhalter was able to sort out individual chords in the discordant thought-melody that was focused on the hospital.

"The patients," he said. "Eh?"

Heath scowled and touched a button. "Fernald? Issue sedatives—" He gave a quick prescription, clicked off the communicator, and rose. "Too many psychotic patients are sensitive," he told Hobson. "We're liable to have a panic on our hands. Did you catch that depressive thought—" He formed a quick mental image. "I'd better give that man a shot. And I'd better check up on the violent cases, too." But he waited.

Hobson remained motionless, staring out the window. After a time he nodded.

"That's the last one. "We're all here now,

all of us. Nobody's left in Sequoia but paranoids and non-Baldies."

Burkhalter moved his shoulders uneasily. "Thought of an answer yet?"

"Even if I had, I couldn't tell you, you know. The paranoids could read your mind."

True enough. Burkhalter thought of Barbara Pell, somewhere in the village—perhaps barricaded in the power station, or at the airfield. Some confused, indefinable emotion moved within him. He caught Hobson's bright glance.

"There aren't any volunteers among the Baldies," the Mute said. "You didn't ask to be involved in this crisis. Neither did I, really. But the moment a Baldy's born, he automatically volunteers for dangerous duty, and stands ready for instant mobilization. It just happened that the crisis occurred in Sequoia."

"It would have happened somewhere. Sometime."

"Right. Being a Mute isn't so easy, either. We're shut out. We can never know a complete round robin. We can communicate fully only with other Mutes. We can never resign." Not even to another Baldy could a Mute reveal the existence of the Helmet.

Burkhalter said, "Our mutation wasn't due for another thousand years, I guess. We jumped the gun."

"We didn't. But we're paying. The Eggs were the fruit of knowledge, in a way. If man hadn't used atomic power as he did, the telepathic mutations would have had their full period of gestation. They'd never have appeared till the planet was ready for them. Not exactly ready, perhaps," he qualified, "but we wouldn't have had quite this mess on our hands."

"I blame the paranoids," Burkhalter said. "And . . . in a way . . . myself."

"You're not to blame."

The Baldy grimaced. "I think I am, Hobson. Who precipitated this crisis?"

"Selfridge—" Hobson was watching.

Barbara Pell," Burkhalter said. "She killed Fred Selfridge. Ever since I came to Sequoia, she's been riding me."

"So she killed Selfridge to annoy you? That doesn't make sense."

"It fitted in with the general paranoid plan, I suppose. But it was what she wanted, too. She couldn't touch me when I was consul. But where's the consulate now?"

Hobson's round face was very grave. A Baldy intern came in, offered sedatives and water, and the two silently swallowed the

barbiturates. Hobson went to the window and watched the flaring of torches from the village. His voice was muffled.

"They're coming up," he said. "Listen."

The distant shouting grew louder as they stood there in silence. Nearer and louder. Burkhalter moved forward to Hobson's side. The town was a flaming riot of torches now, and a river of light poured up the curved road toward the hospital.

"Can they get in?" someone asked in a hushed voice.

Heath shrugged. "Sooner or later."

The intern said, with a touch of hysteria: "What can we do?"

Hobson said, "They're counting on the weight of numbers, of course. And they've got plenty of that. They aren't armed, I suppose, except for daggers—but then they don't need arms to do what they think they're going to do."

There was a dead silence in the room for a moment. Then Heath said in a thin voice, "What they *think*—?"

The Mute nodded toward the window. "Look."

There was a small rush toward the glass. Peering over one another's shoulders, the men in the room stared down the slope of the road, seeing the vanguard of the mob so near already that the separate torches were clearly distinguishable, and the foremost of the distorted, shouting faces. Ugly, blind with hatred and the intention to kill.

Hobson said in a detached voice, as if this imminent disaster were already in the past. "We've got the answer, you see—we know about *this*. But there's another problem I can't solve. Maybe it's the most important one of all." And he looked at the back of Burkhalter's head. Burkhalter was watching the road. Now he leaned forward suddenly and said:

"Look! There in the woods—what is it? Something moving—people? Listen—what is it?"

No one paid any attention beyond the first two or three words he spoke, for all of them saw it now. It happened very swiftly. One moment the mob was pouring unchecked up the road, the next a wave of shadowy forms had moved purposefully out of the trees in compact, discipline order. And above the hoarse shouting of the mob a cry went terribly up, a cry that chilled the blood.

It was the shrill, falsetto that had once been the Rebel Yell. Two hundred years ago it echoed over the bloody battlefields of the

Civil War. It moved westward with the conquered rebels and became the cowboy yell. It moved and spread with westerners after the Blow-Up, the tall, wild men who could not endure the regimentation of the towns. Now it was the Hedgehound yell.

From the window the hospital watchers saw it all, enacted as if on a firelit stage below them.

Out of the shadows the men in buckskin came. Firelight flashed on the long blades they carried, on the heads of the arrows they held against the bent bows. Their wild, shrill, terrible yell rose and fell, drowning out the undisciplined screams of the mob.

The buckskin ranks closed in behind the mob, around it. The townsmen began to huddle together a little, until the long loosely ordered mob had become a roughly compact circle with the woodsmen surrounding them. There were cries of, "Kill 'em! Get 'em all!" from the townsmen, and the disorderly shouts arose raggedly through the undulations of the Hedgehound yell, but you could tell after the first two or three minutes who had the upper hand.

Not that there was no fighting. The men at the front of the mob had to do something. They did—or tried to. It was little more than a scuffle as the buckskin forms closed in.

"They're only townsmen, you see," Hobson said quietly, like a lecturer explaining some movie scene from old newsreel films. "Did you ever think before how completely the profession of the fighting man has died out since the Blow-Up? The only organized fighting men left in the world are out there, now." He nodded toward the Hedgehound ranks, but nobody saw the motion. They were all watching with the incredulous eagerness of reprieved men as the Hedgehounds competently dealt with the mob which was so rapidly changing into a disorganized rabble now as the nameless, powerful, ugly spirit that had welded it into a mob died mysteriously away among them.

All it took was superior force, superior confidence—the threat of weapons in more accustomed hands. For four generations these had been townsmen whose ancestors never knew what war meant. For four generations the Hedgehounds had lived only because they knew unremitting warfare, against the forest and mankind.

Competently they went about rounding up the mob.

"It doesn't solve anything," Burkhalter said at last, reluctantly, turning from the window. Then he ceased to speak, and sent

his mind out in rapid thoughts so that the nontelepaths might not hear. *Don't we have to keep it all quiet? Do we still have to decide about—killing them all? We've saved our necks, sure—but what about the rest of the world?*

Hobson smiled a grim, thin smile that looked odd on his plump face. He spoke aloud, to everyone in the room.

"Get ready," he said. We're leaving the hospital. All of us. The non-Baldy staff, too."

Heath, sweating and haggard caught his breath. "Wait a minute. I know you're the boss, but—I'm not leaving my patients!"

"We're taking them, too," Hobson said. Confinee was in his voice, but not in his eyes. He was looking at Burkhalter. The last and most difficult problem was still to be met.

The Cody's thought touched Hobson's mind. *All ready.*

You've got enough Hedgehounds?

Four tribes. They were all near the Fraser Run. The new consulate set-up had drawn 'em from the north. Curiosity.

Report to group.

Scattered across the continent, Mutes listened. *We've cleaned out Sequoia. No deaths. A good many got pretty well beaten up, but they can all travel. (A thought of wry amusement.) Your townspeople ain't fighters.*

Ready for the march?

Ready. They're all rounded up, men, women and children, in the north valley. Umpire Vine's in charge of that sector.

Start the march. About the paranoids, any trouble there?

No trouble. They haven't figured it all out yet. They're still in the town, sitting tight. We've got to move fast, though. If they try to get out of Sequoia, my men will kill. There was a brief pause. Then—The march has started.

Good. Use the blindfolds when necessary.

There are no stars underground, the Cody's thought said grimly.

No non-Baldy must die. Remember, this is a point of honor. Our solution may not be the best one, but—

None will die.

We're evacuating the hospital. Is Mattoon ready?

Ready. Evacuate.

Burkhalter rubbed a welt on his jaw. "What happened?" he asked thickly, staring around in the rustling darkness of the pines.

A shadow moved among the trees. "Get-

ting the patients ready for transportation—remember? You were slugged. That violent case—"

"I remember." Burkhalter felt sheepish. "I should have watched his mind closer. I couldn't. He wasn't *thinking*—" He shivered slightly. Then he sat up. "Where are we?"

"Quite a few miles north of Sequoia."

"My head feels funny." Burkhalter rearranged his wig. He rose, steadying himself against a tree, and blinked vaguely. After a moment he had reoriented. This must be Mount Nichols, the high peak that rose tall among the mountains guarding Sequoia. Very far away, beyond intervening lower summits, he could see a distant glow of light that was the village.

But beneath him, three hundred feet down, a procession moved through a defile in the mountain wall. They emerged into the moonlight and went swiftly on and were lost in shadow.

There were stretcher-bearers, and motionless, prone figures being carried along; there were men who walked arm in arm; there were tall men in buckskin shirts and fur caps, bows slung across their shoulders, and they were helping, too. The silent procession moved on into the wilderness.

"The Sequoia Baldies," Hobson said. "And the non-Baldy staff—and the patients. We couldn't leave them."

"But—"

"It was the only possible answer for us, Burkhalter. Listen. For twenty years we've been preparing—not for this, but for the pogrom. Up in the woods, in a place only Mutes know about, there's a series of interlocking caves. It's a city without population. The Cody's—there are four of them, really—have been using it as a laboratory and a hideout. There's material there for hydroponics, artificial sunlight, everything a culture needs. The caves aren't big enough to shelter all the Baldies, but they'll hold Sequoia's population."

Burkhalter stared. "The non-Baldies?"

"Yes. They'll be segregated, for a while, till they can face truth. They'll be prisoners; we can't get around that fact. It was a choice between killing them and holding them incommunicado. In the caves, they'll adapt. Sequoia was a tight, independent community. Family units won't be broken up. The same social pattern can be followed. Only—it'll be underground, in an artificial culture."

"Can't the paranoids find them?"

"There are no stars underground. The

paranoids may read the minds of the Sequoians, but you can't locate a mind by telepathic triangulation. Only Mutes know the location of the caves, and no paranoid can read a Mute's thoughts. They're on their way now to join us—enough Mutes to take the Sequoians on the last lap. Not even the Hedgehounds will know where they're going."

"Then the secret will be safe among telepaths—except for the Hedgehounds. What if they talk?"

"They won't. Lots of reasons. For one, they have no communication to speak of with the outside world. For another, they're under an autocracy, really. The Codys know how to enforce their rules. Also, have you thought how the towns would react if they knew Hedgehounds had cleaned out a whole village? To save their own skins the Hedgehounds will keep their mouths shut. Oh, it may leak out. With so many individuals involved you never can be absolutely sure. But I think for an extemporaneous plan, it'll work out well enough." Hobson paused and his mind brushed with the keenness of a quick glance against Burkhalter's mind. "What's the matter, Burk? Still worried about something?"

"The people, I suppose," Burkhalter admitted. "The humans. It doesn't seem exactly fair, you know. I'd hate to be cut off forever from all contact with the rest of the world. They—"

Hobson thought an explosive epithet. It was much more violent thought than voiced. He said, "Fair! Of course it isn't fair! You saw that mob coming up the road, Burk—did they have fairness in mind then? If anyone ever deserved punishment that mob does!" His voice grew milder. "One thing we tend to lose sight of, you see. We grow up with the idea of indulgence toward humans pounded into us to such an extent we almost forget they're responsible people, after all. A pogrom is the most indefensible concerted action a group can be guilty of. It's always an attack by a large majority on a defenseless minority. These people would have killed us all without a qualm, if they could. They're lucky we aren't as vicious as they were. They deserve a lot worse than they're getting, if you ask me. We didn't ask to be put in a spot like this. There's unfairness involved all around, but I think this solution is the best possible under the circumstances."

They watched the procession below moving through the moonlight. Presently Hobson

went on. "Another angle turned up after we put this thing in motion, too. A mighty good one. By sheer accident we're going to have a wonderful laboratory experiment going on in human relations. It won't be a dead-end community in caves. Eventually, we think the Baldies and the non-Baldies will intermarry there. The hospital staff are potential good will ambassadors. It'll take careful handling, but I think with our facilities for mind reading and the propaganda we can put out adjusted by the readings, things will work out. It may be the basis for the ultimate solution of the whole Baldy-human problem.

"You see, this will be a microcosm of what the whole world ought to be—would have been if the Blow-Up hadn't brought us telepaths into being ahead of our normal mutation time. It will be a community of humans dominated by telepaths, controlled by them benevolently. We'll learn how to regulate relations with humans, and there'll be no danger while we learn. It'll be trial and error without punishment for error. A little hard on the humans, perhaps, but no harder than it's been for generations on the Baldy minority all over the world. We might even hope that in a few years' time the experiment may go well enough that even if the news leaked out, the community members would elect to stay put. Well, we'll have to wait and see. It can't be solved any better way that we know of. There is no solution, except adjustment between the races. If every Baldy on earth committed voluntary suicide, there'd still be Baldies born. You can't stop it. The Blow-Up's responsible for that, not us. We . . . wait a minute."

Hobson turned his head sharply, and in the rustling night silences of the forest, broken only by the subdued noises of the proposition far below, they listened for a sound not meant for ears.

Burkhalter heard nothing, but in a moment Hobson nodded.

"The town's about to go," he said.

Burkhalter frowned. "There's another loose end, isn't there? What if they blame Pinewood for dusting Sequoia off?"

"There won't be any proof either way. We've about decided to spread rumors indicating two or three other towns along with Pinewood, enough to confuse the issue. Maybe we'll say the explosion might have come from an accident in the Egg dump. That's happened, you know. Pinewood and the rest will just have to get along under a slight cloud for awhile. They'll have an eye

kept on them, and if they should show any more signs of aggression . . . but of course, nothing will happen. I think . . . look, Burkhalter! There she goes!"

Far away below them the glow that was Sequoia lay like a lake of light in the mountains' cup. As they watched, it changed. A nova flamed in incandescent splendor, whitening the men's faces and showing the pines in starkly black silhouette.

For an instant the soundless ether was full of a stunning, mindless cry that rocked the brain of every telepath within its range. Then there was that terrible void, that blankness of cessation into which no Baldy cares to look. This time it was a mighty vortex, for a great many telepathic minds perished together in that nova. It was a vortex that made the mind reel perilously near its great, sucking brink. Paranoid they may have been, but they were telepathic too, and their going shook every brain that could perceive the passing.

In Burkhalter's mind a reeling blindness struck. He thought, *Barbara, Barbara. . .*

It was an utterly unguarded cry. He made no effort to hush it from Hobson's perception.

Hobson said, as if he had not heard, "That's the finish. Two Mutes in copters dropped the Eggs. They're watching now. No survivors. Burkhalter—"

He waited. Slowly Burkhalter pulled himself out of that blind abyss into which the beautiful, terrible, deadly image of Barbara Pell whirled away toward oblivion. Slowly he brought the world back into focus around him.

"Yes?"

"Look. The last of the Sequoians are going by. You and I aren't needed here any more, Burk."

There was significance in that statement. Burkhalter shook himself mentally and said with painful bewilderment,

"I don't . . . quite get it. Why did you bring me up here? Am I—" He hesitated. "I'm not going with the others?"

"You can't go with them," the Mute said quietly. There was a brief silence; a cool wind whispered through the pine needles. The pungent fragrance and freshness of the night washed around the two telepaths. "Think, Burkhalter," Hobson said. "Think."

"I loved her," Burkhalter said. "I know that now." There was shock and self-revulsion in his mind, but he was too stunned by the realization for much emotion to come through yet.

"You know what that means, Burkhalter? You're not a true Baldy. Not quite." He was silent for a moment. "You're a latent paranoid, Burk," Hobson said.

There was no sound or thought between them for a full minute. Then Burkhalter sat down suddenly on the pine needles that carpeted the forest floor.

"It isn't true," he said. The trees were reeling around him.

"It is true," Burk." Hobson's voice and mind were infinitely gentle. "Think. Would you—could you—have loved a paranoid, and such a paranoid as that, if you were a normal telepath?"

Dumbly Burkhalter shook his head. He knew it was true. Love between telepaths is a far more unerring thing than love between blind and groping humans. A telepath can make no mistake about the quality of the beloved's character. He could not if he wished. No normal Baldy could feel anything but utter revulsion toward the thing that had been Barbara Pell. No normal Baldy—

"You should have hated her. You did hate her. But there was something more than hate. It's a paranoid quality, Burk, to feel drawn toward what you despise. If you'd been normal, you'd have loved some normal telepathic woman, someone your equal. But you never did. You had to find a woman you could look down on. Someone you could build up your ego by despising. No paranoid can admit any other being is his equal. I'm sorry, Burk, I hate to say these things."

Hobson's voice was like a knife, merciless and merciful, exercising diseased tissue. Burkhalter heard him, and trod down the latent hatred which the truth—and he knew the truth of it—brought out in his double mind.

"Your father's mind was warped too, Burk," Hobson went on. "He was born too receptive to paranoid indoctrination—"

"They tried their tricks on him when he was a kid," Burkhalter said hoarsely. "I remember that."

"We weren't sure at first about what ailed you. The symptoms didn't show till you took on the consulate. Then we began to build up a prognosis, of sorts. You didn't really want that job, Burkhalter. Not subconsciously. Those heavy fatigues were a defense. I caught that daydream of yours today—not the first one you've had. Daydreams concerned with suicide—another symptom, and another means of escape. And Barbara Pell—that was the payoff. You

couldn't let yourself know what your real feelings were, so you projected the opposite emotion—hatred. You believed she was persecuting you, and you let your hatred have full freedom. But it wasn't hatred, Burk."

"No. It wasn't hatred. She . . . she was horrible, Hobson! She was horrible!"

"I know."

Burkhalter's mind boiled with violent emotions, too tangled to sort out. Hatred, intolerable grief, bright flashes of the paranoid world, memory of Barbara Pell's wild mind like a flame in the wind.

"If you're right, Hobson," he said with difficulty, "you've got to kill me. I know too much. If I'm really a latent paranoid some day I might betray—Us."

"Latent," Hobson said. "There's a world of difference—if you can be honest with yourself."

"I'm not safe if I live. I can feel—disease—back in my mind right now. I—hate you, Hobson. I hate you for showing me myself. Some day the hate may spread to all Mutes and all Baldies. How can I trust myself any more?"

"Touch your wig, Burk," Hobson said.

Bewildered, Burkhalter laid a shaking hand upon his head. He felt nothing unusual. He looked at Hobson in complete confusion.

"Take it off, Burk."

Burkhalter lifted off the wig. It came hard, the suction caps that held it in place giving way with reluctance. When it was off, Burkhalter was amazed to feel that there was still something on his head. He lifted his free hand and felt with unsteady fingers a fine cap of wires like silk, hugging his skull. He looked up in the moonlight and met Hobson's eyes. He could see the fine wrinkles around them, and the look of kindness and compassion on the Mute's

round face. For an instant he forgot even the mystery of the strange cap on his head. He cried voicelessly,

Help me, Hobson! Don't let me hate you!

Instantly into his mind came a firm, strong, compassionate locking of thoughts from many, many minds. It was a communion more intimate and of a different quality than anything he had ever felt before. And it was to the mind as the clasp of many supporting hands would be to the body when the body is weary and in infinite need of support.

You're one of us now, Burkhalter. You wear the Helmet. You are a Mute. No Paranoid can ever read your mind.

It was Hobson's thought that spoke to him, but behind it spoke the thoughts of many others, many trained minds from hundreds of other Mutes, all speaking as if in a chorus that echoed and amplified all Hobson said.

But I . . . I'm a latent—

The hundreds of minds blended into a cohesive unit, the psychic colloid of the round robin, but a different, more intense union, wrought into something new by the caps that filtered all their thoughts. The unit became a single mind, strong and sane and friendly, welcoming the newcomer. He did not find miraculous healing there—he found something better.

Truth. Honesty.

Now the warp in his mind, the paranoid quirk and its symptoms and illogic, became very clear. It was the highest kind of psychoanalysis, which only a Baldy can know.

He thought, *It will take time. The cure will take—*

Hobson was standing behind him. *I'll be with you. Until you can stand alone. And even then—we'll all be with you. You are one of us. No Baldy is ever alone.*



ORDERS

By MALCOLM JAMESON

This is the last Malcolm Jameson story that we can publish, a bit of the Commander Bullard saga found among Jameson's papers after his death.

BEING the world's worst thumb twiddler, Bullard was unhappy. He was restless, disgusted and bored. There was nothing to do. There could be nothing to do. And if there should be, by any chance, there was nothing to do it with. That he temporarily bore the rank of admiral while acting as commandant of the great Lunar Base helped him not at all. He had little taste for brass-hattism and an immense loathing for swivel chairs. He got up from the one he was sitting in and paced the floor of his sumptuous office for awhile. Then he planted himself before its big window and stared gloomily at the dreary scene outside.

The uncanny silence in that former bustling place was depressing. No longer was heard the shrill whistles of traveling cranes, the whir of fabricating machines, or the boom-boom of heavy stamps. The shops were closed; the men laid off; the ships away. Ships! Bullard's mouth tightened. Yes, there were ships present, rows upon rows of them—dead hulls of what had once been proud warships, now rusting away until the wrecking crews should come and go to work on them. What remnants of the Fleet that had escaped the ax wielded by the gang of pacifists now in control were dispersed to the far corners of the System, their crews enjoying themselves on leisurely, junketing "good-will cruises." His own good ship, the *Pollux*, was the sole exception. She lay at the moment over in the remodeling dock in Gobi Crater, her machinery torn out and the bulk of her crew disbanded. The amazing new astral drive units that were meant to go in her still lay unboxed in the storehouse, the nullochrons were not even on order. It might be a year before work was resumed. Bullard sighed. So this was the peace he had fought hard for. Bah!

Peace reigned from the flaming face of Sol to the outermost reaches of the Plutonian orbit. All was serene. Some claimed it would always be serene hereafter; the human race was fed up with war. There was never to

be another one. Yes, peace. It was supposed to be wonderful, but Bullard felt otherwise. It was not that he was a war-loving man; far from it. But he knew his Martians, and his Calistans, and his Venusians, and all the rest, not forgetting some scheming Telurians who dwelt down below on Earth. It was too much to expect that they would stay bound forever by the lofty phrases and noble sentiments expressed in the Treaty of Juno. It is true that they had forsworn the use of force in interplanetary relations, but the paths of history are littered with the torn scraps of similar treaties, though men seemed to have forgotten it. At any rate, the peace had borne heavily on the armed services. Officers and men were retired in droves, battleships and cruisers were enthusiastically scrapped, new construction came to a dead halt. There was nothing to look forward to but dull routine and inaction. Bullard sighed again, and gnawed his lower lip.

He was about to turn away from the window, weary from the bleak view and his own depressing thoughts, when his eye caught the glint of sunlight on burnished gold. The glitter came from a small sky-cycle that had just entered the dome through the southwest portal and was skimming to a stop in the middle of the parade ground. Bullard knew at once from its dark-green color that it belonged to the State Department, and from the golden insignia it sported that it was the personal car of a very high official. He frowned speculatively at that, for experience had taught him that unscheduled visits from diplomatic bigwigs invariably meant trouble. Their contempt for the Service was notorious—they haughtily ignored the uniformed men until their own muddlings sometimes brought affairs to such a pass that there was nothing left but to call in men of action to strengthen their hand.

"Wonder what this bird wants?" growled Bullard, watching the man alight from the machine. "If it's a snappy warship for a

dirty job, he won't get it. There aren't any." Then he put on his best poker face, recrossed the room, and sat down to await his caller.

"I," announced the caller, exuding pomposity and incompetence from every pore, "am Lionel Wallowby, Undersecretary of State for Asteroidal Affairs. My calling on you, rather than sending for you, though unprecedented—"

"I am honored," said Bullard, bowing stiffly, but without a quiver of expression. Now he knew whom he had to deal with, for Wallowby's name was a byword, and he knew that the interview was not going to be an easy one. Fellow officers who had dealt with the man complained afterward that the strain of holding themselves in was almost intolerable. Not that Wallowby was a villain, or even malicious. He was simply smug, vain, useless—an outstanding example of what nepotism at its worst can foist upon a suffering public.

"I come about a matter of great urgency which will require your immediate intervention."

"How can anything be urgent in these placid times?" asked Bullard bitterly, "and if so what can I do about it? Article VIII. of the Treaty of Juno—of which, if my memory is not at fault, you were one of the drafters—forbids forever the used of force or the threat of force in any situation whatever, regardless of provocation. Isn't that correct?"

"Uh, yes," admitted Mr. Wallowby, squirming in his seat, "but here are aspects of the situation in hand that make it exceptional. You see, it is the attitude of the Trojans. It is distressing. Humiliating. They sidestep, fence, and quibble. We have reached an impasse. An exasperating people, really."

"Quite!" said Bullard. He could think of a hundred adjectives applicable to them, all harsher. Exasperating, indeed! On the gray rocks of those far-off groups of asteroids lived the lowest and meanest dregs of mankind. Their rulers were fugitive shyler lawyers, disbarred from more decent planets. Their "aristocracy" were retired pirates and gamblers, their "working" populace a medley of every type of petty crook from pickpocket to cutthroat. Their very existence as a quasi-independent nation was a reproach to civilization.

"They take every advantage of their privileged international status," complained Mr. Wallowby.

"They would," said Bullard, dryly. "And why not?"

It was a dig at his caller, for it was Undersecretary Wallowby who had held out at the peace conference for the continued autonomy of the Trojans, alleging that to leave them as they were was the simplest evasion of the age-old rivalry between the Martians and the colonists on the Saturnian satellites. And so it might have been had the Trojans been populated by any other kind of people. But as it turned out, "autonomy," as construed by the bosses of the Trojans meant license to thumb their noses at the rest of the civilized world. They owed their immunity to subjugation to their peculiar location in the Solar System. Both groups rode the orbit of Jupiter, one a half billion miles ahead, the other an equal distance behind the master planet. Therefore, the Jovians periodically made claim for jurisdiction. But there are years when Saturn is actually closer to one or the other of them, and often Mars is closer to both. From the earliest asteroid-grabbing days Mars and Saturn had quarreled over which had the primary interest. The nearsighted framers of the Treaty of Juno had ducked the issue by leaving the Trojan groups autonomous, but yet under the joint protection of both squabbling claimants. Whereupon the Trojans promptly made the most of it.

Bullard knew the rocky planetoids well, for he had visited them often in the days when manhunters were not handicapped by paralyzing rules. He knew the men who ran them, particularly the swashbuckling four-flusher who styled himself the Boss of Nestor. Since he had defied him more than once in cutting out some wanted man. But those good old days were gone. Nowadays the Trojans wrapped themselves in the blessing of the no-violence terms of the fatuous treaty. No one could enter their ports forcibly, or remove any criminal fugitive without their consent—not even one of their own protectors. Should Mars make harsh claims, the Trojans would appeal to the Saturnians, who in turn, could be counted upon to declare the Martians in the wrong. Or they would work it the other way around. On the other hand if the Earth or any other outside planet presented a claim or grievance, both protectors would be called in. The Trojans played both ends against the middle with great skill. Their position resembled that of certain small Balkan countries at an earlier period in history—they were of little intrinsic worth but of high

nuisance value. The least upsetting of the *status quo* could easily initiate another general war. The Trojan situation, in short, was dynamite.

"What is your difficulty with the Trojans?" Bullard asked, seeing that Wallowby seemed at a loss to proceed. "What do you want of me?"

"I . . . uh, that is we . . . or the Department, I meant to say," stammered Wallowby, "find we are compelled to ask you to extricate . . . no, that isn't what I mean . . . execute a delicate diplomatic mission. It has to do with a notorious criminal known as Grory the Groat. We have extradited him and now want to secure custody."

"I have no ships in commission here," remarked Bullard, "whereas skyliners make the trip every month. Furthermore, you have a large staff of marshals who are maintained for just such missions. The apprehension of a civil prisoner is outside my jurisdiction." He had not missed Wallowby's fumbling of the word "extricate," and already guessed the civil arm had made a try for Grory and messed it up. Wallowby's capacity for bungling was unsurpassed.

"The Trojans do not treat our marshals with respect," whined Wallowby. He was not used to being talked back to, and he did not like to admit what he had to. "We have sent several, but they are always turned back on one legalistic pretext or another. In our first requisition we claimed Grory on charges of treason, sabotage, fomenting rebellion, and gun-running. They accepted it, but when our officer got there they told him that they had reconsidered. It appears that the crimes enumerated were not sufficient in view of the blanket amnesty clause in the Treaty."

"Of course not," said Bullard bluntly. "They have a political tinge. You should have known better. Isn't that general amnesty clause known widely as the Wallowby Provision?"

Wallowby flushed, then turned huffy.

"It was never intended to give immunity to common scoundrels of the Grory stripe," he said stiffly. "Moreover the treaty is not what I came to discuss."

Bullard shrugged. Wallowby went on.

"Since then we have submitted other requests. Five, to be exact. We have presented evidence of piracy, murder and embezzlement. We have demanded him for smuggling drugs and white slaves, for counterfeiting, and a score of other crimes. Each time they say we may have him if we only send. Each

time our marshal arrives there they send him back emptyhanded, always with a different excuse. To make the story short, they are evasive and unco-operative. They have persistently refused to arbitrate. They flout us, admiral they *flout* us!" It was a wail.

"Maybe they don't want to give up Mr. Grory the Groat," said Bullard.

Wallowby looked momentarily startled as if that suggestion was entirely novel to him. Then he rallied himself and completed his oration.

"We have been correct, considerate, and courteous throughout. They repay us with legal sophistries. We have dilly-dallied over-long. My patience is at its end. The hour for action has struck. Now the time has come when we must reveal the iron hand that lies beneath the velvet glove—"

"What iron hand?" asked Bullard brutally.

Wallowby blinked and swallowed hard.

"Why, uh, the *potential* iron hand, of course. We must be more impressive. We must be more stern. We must cease making request and make *demand*s. You will at once send a warship to Nestor and secure the person of this Grory for us."

"That," said Bullard, rising, "is absolutely absurd. The only ships we have that can take the void have been thoroughly demilitarized. Even if they were armed, we are still forbidden by the terms of your ridiculous treaty from using them. What, I ask, can a gunless battleship do that a letter can't do?"

"You are impertinent. *Acting* Admiral Bullard," said Wallowby with what was meant to be cutting sarcasm. He, too, was on his feet, and his face aflame. "I have wasted words enough on you. Here are your orders. Carry them out."

He jerked a long official envelope from an inner pocket and hurled it onto Bullard's desk. Then, after venting one contemptuous sniff, stalked haughtily out.

"Well, I'll be—" whistled Bullard as the door closed on the back of his departing caller.

He sat for long, staring down at those silly orders and marveling at the incredible stupidity of a man such as Wallowby. Yet, he asked himself after a time, was he so stupid after all? However he might bungle jobs, he had cunning enough to find an out. The suspicion was growing in Bullard's mind that this time it was he who had been chosen

for the goat. He glanced through the orders again.

They were official enough, having been signed in open council by no lesser personage than the Director himself. And they were simple. They directed that a demilitarized man-of-war be put in commission at once and sent under the command of a competent officer to the port of Nestor in the Anterior Trojans. Upon arrival the ship's captain was to make peremptory demand upon the Boss of Nestor for the person of one Grory the Groat, receive him into custody, and deliver him to the appropriate authorities on Earth. The demand was to be made in the name of interplanetary law only and was not to be accompanied by threatening words or gestures. If refused, no efforts were to be made to apprehend Grory by force. In the latter event, the visiting officer was to politely withdraw and return to Luna.

"Nuts!" snorted Bullard, kicking his swivel chair out from under him and beginning a feverish pacing of the room. For five minutes he angrily strode up and down, cursing Wallowby without cessation. For now his dilemma was crystal clear. Wallowby, the louse, didn't matter any longer. He had adroitly ducked from under. The thing was official now. Whatever the stupidities and ineptness of the Office of Asteroidal Affairs, they had been buried, white-washed, glossed-over, or what have you. The mess had been laid in Bullard's lap. It was his baby now. Worse, it was the Service's baby.

If and when the affair was ever made public, the story would run thus: Justice located their man; State put through the necessary requests and papers; Space Service was assigned to execute the ultimate act of physical possession. Whether or not they got the man would be irrelevant. The two civil departments had done their stuff, if blame was due it was due somewhere else.

"Heads he wins, tails I lose," growled Bullard. "If we get Grory, it is no more than we are expected to do—a routine matter; if we don't get Grory, we're a pack of bums. There isn't but one answer. No stuffed shirt like Wallowby is going to make this outfit a laughingstock as long as I'm giving the orders. *I'm going to get Grory.*"

He sat down to gather himself together and think of ways and means. The more he contemplated the problem, the thicker it got. Wallowby's legal sharks had done their best—and failed; his diplomats had made repre-

sentations, argued and pleaded—and had failed; his marshals had been received with ridicule, and sent back defeated. But that, after all, was the Wallowby crowd. Bullards' eyes grew hard. He knew offhand of at least forty officers on the Moon he could send who would bring back Grory dead or alive, and the blustering Boss of Nestor, too, if it came to that, if only told to do so. But Bullard could not order them out. His hands were bound by the let-the-lamb-lie-down-with-the-lion platitudes of the accursed Treaty of Juno. No longer could a Guardsman look a hardboiled criminal in the eye and say, "Put 'em up, or else." Oh, no. You should approach the rogue politely and request he accompany you to the jail. Bah! That time Bullard picked up his chair and hurled it clear across the room. After that he took up his tigerish rug tramping again.

All the answers were negative. If he didn't bring Grory back, he would have furnished Wallowby with the alibi he sought. If he brought him back through the use of, or by the barest hint of force, a delicate interplanetary situation would be provoked. The Martians and Saturnians would be certain to protest it as a violation of the treaty, and again the blame would fall upon Bullard's man for having been over zealous. It might not result in a resumption of the war, but it was as risky as smoking in a powder magazine.

Spent from his excited pacing, Bullard sat down again. This time he discarded all the usual approaches and went at the problem in his own way. There had been other times in his life that he had received asinine, if not impossible orders, and had managed somehow to carry them into execution, though, it must be admitted in all frankness, not always to the perfect satisfaction of those who had issued them. Now he must wrack his brains again.

He scanned the list of ships present and the roster of personnel. The choice of ships was easy. He selected the ex-cruiser, *Llerdyx*, a prize of war, for the vessel. Her guns had been pulled and the ports blanked off, and her torpedo tubes plugged beyond repair, but she was handy and fast and that was all he wanted. Bullard sent orderlies scurrying with word to various departments. The *Llerdyx* was to be renamed the *Texas Ranger*, provisioned and fueled and made ready for departure the following day. Her crew was to be made up of *Pollux* men then waiting in the lonely barracks by the Gobi dock.

All of Bullard's best officers were away on extended leave, but at length he found a notation on the roster that gave him comfort. Lieutenant Benton, whom he had flected up from tubeman, was due back on Luna that very night. Benton then was the man, for Benton could be relied upon. That disposed of the expedition except provision for what it was to do. That was the hardest task.

He sat down at the ordergraph. His fingers flew as he pecked out part one of the orders. They were largely a paraphrase of the set Wallowby brought. Then the going got hard; Bullard bogged down. He swore softly to himself, scowled, wrote pages of drafts, only to tear them up and feed them into the maw of his wastebasket. He would light one cigarette on the butt of its predecessor, then grind it angrily under his heel. It was one thing to write orders that could be complied with, another to compose a set in the face of almost certain failure. It was like ordering a faithful follower to go up against a ruthless killer with nothing but an empty gun.

Dark was almost at hand when Bullard finally wrote out the words he dreaded to put down. But he did write them out, for his duty was plain. They would be painful for Benton to execute, and disgraceful for Bullard if they were ever made known. But the feelings and reputations of two men did not count in the grander scheme of things. Very reluctantly Bullard inserted the paper in an envelope, sealed it with a sigh, then typed on the cover these words:

To be opened and put into effect only in the event that the Boss of Nestor refuses to hand over the person of Grory the Groat. Otherwise this must be returned to signer intact.

Bullard.

An hour later Benton reported for duty, brisk, cheerful and ruddy after his vacation. But his grin faded when he saw the somber mood of his skipper. Bullard hardly spoke. Instead he handed over part one of the orders.

"Geel!" said Benton, delighted. "I get a command. And do a cruise all on my own. That's great!"

"Evidently you do not understand what you are to do," said Bullard, gravely.

"Sure. It's clear enough. I hop off tomorrow, go out to Nestor, tell 'em I want this bird Grory, slap him in the brig, and then come back. What's the catch?"

"They aren't going to give Grory up."

"Huh?" Benton was astonished. Then his face widened as his old grin came back. Now he knew—Bullard was having a little private fun, he was pulling his leg. "Why that flea-bitten little so-called republic. For two cents I'd blast 'em out of the ether, no matter what they've got."

"That," said Bullard, "is the hard part. You aren't permitted to do any blasting. You haven't any arms but sidearms. And they know it."

"All right. They say no. Then what do I do? Come home like a whipped hound?"

Bullard drew the secret portion of the orders out of his desk drawer and fondled its envelope thoughtfully.

"You will find the answer here," he said. "This will tell you all you need to know."

Bullard got up abruptly and walked to the window, where he stood for a moment looking out into the dim night, his hands clasped behind him. Benton saw that his fingers were twitching nervously, and was surprised, for he had seldom seen the celebrated captain of the *Pollux* display strong emotion. Then Bullard began speaking again, but still facing out the window. His tone was low and his voice solemn.

"Benton, lad, there is something I want you to remember when you get out there on Nestor. That is that I am sending you on this mission only because I am forbidden to take it myself. The darkest hours in any senior's life come when he is compelled to delegate a job so dirty that he would shrink from touching it himself. This job, Benton, is that kind of job. If the worst comes and you have to open this envelope, you will have no choice but comply with its harsh instructions. You will want to squirm out from under, you will want to rebel, you will hate me—"

"Oh, no, skipper," exclaimed Benton. "I can carry out orders. You know it!"

"To the letter, whatever the cost, whatever your opinion of the orders themselves or the man who wrote them?"

"Why, yes, sir. What proper officer would not?"

Bullard whirled, and Benton thought he caught a twinkle in his eyes, though the mouth still held its grim set.

"There have been times, Benton," Bullard said softly, with a faint smile, "when officers have not always adhered to the letter. In fact, on several such occasions I believe you acted as an accomplice." Then his face grew stern again, and the voice peremptory

and commanding. "In this instance you are to attempt nothing of the sort. Orders are orders."

He handed Benton the sealed package. Then he shook him warmly by the hand. Benton looked so crestfallen that Bullard was beginning to wonder if he had not overplayed his hand.

"If you work things right," said Bullard, in a more confident tone, "you will bring this back unopened along with Grory. I cannot tell you in advance what my instructions are, but I assure you that I have prepared for every conceivable contingency. The only hints I can give you are these: be cool and civil; do not bluster or enter into a debate. But be bold, be confident when you make your demand. If it is refused, go back quietly to the ship and wait. If nothing happens by the expiration of four hours, then you will have to do what I have written here. Good luck!"

Many times on the trip out Benton took the mysterious envelope out of the safe and examined it hopefully. There was no clue to what it contained. As often he put it back, more curious than ever. His confidence in Bullard was unbounded; he was sure of one thing, and that was that those hidden orders *did* have the answer to anything that might come up. But what? Bullard had intimated that carrying them out would be distasteful, perhaps hazardous. Oh, well!

Benton went through the ship with a fine-toothed comb, looking for secret gadgets that might have been planted there. He found nothing. Whatever Bullard expected him to do was probably in the strictly Bullardian manner—a pulling of rabbits out of a hat. He was still puzzling over the teaser when the Trojan group showed up on his screen. A little later he was setting the newly christened *Texas Ranger* down on Nestor.

When he stepped out of the space lock he saw to his surprise that he had company. A Martian gunboat, bristling with long Zordich guns, lay to his left; a Saturnian sloop of war, studded with tube openings, lay to the right. An armed yacht, sporting the triple-cross emblem of the Trojans, was a little way ahead of where he lay. It was apparent that the denizens on the outer planets were not taking disarmament as seriously as the gullible Earth people. It was very disconcerting.

Then Benton thought of his orders inside in the safe. It bucked him up. No doubt the presence of these vessels was one of the

contingencies that Bullard had provided for. Bullard was a careful man. Benton walked on toward the port.

His interview with the Boss of Nestor was short and to the point. He stated what he had come for; the answer was a curt no. That was all there was to it.

"Very well," said Benton, calmly. Bullard's words still rang in his ears—"be confident, be cool, be bold."

Someone in the audience chamber snickered, but Benton ignored it. He walked down the aisle and out the door with a firm step but without haste. At the door the Nestorian captain of the port who had escorted him to the place took him back in tow.

"You take it easier than the marshals did," he said, in an offhand way. "They raved and swore. But it didn't get 'em anywhere. Our Boss is tough."

"Yeah?"

"Yes. Are you shoving off now?"

"Oh, no," said Benton. "I haven't finished yet."

They walked along for a hundred yards while the beetle-browed captain mulled that cryptic remark over. At length he asked for enlightenment.

"You came for Grory and the Boss said you couldn't have him? So what? Bluffs don't work on Nestor."

"I wouldn't know."

"Then what? What have you got up your sleeve?"

"You'll find out in just four hours from now—if I don't get Grory."

"Oh, a threat, huh?"

"Nope. A statement."

The port captain left Benton at his ship, then walked across to the Martian vessel and said something to its skipper. Then Benton saw him making his way toward the Saturnian. Benton called for his steward.

"Bring out that fancy deck chair we found in the cabin," he directed.

Ten minutes later Benton was stretched out in a luxurious silken chair over which a striped awning made a canopy against the weak Nestorian sun. By his side stood a taboret and on it a tall, cool drink. Benton relaxed. It was his way of displaying confidence.

Presently the Martian captain came over, read the name of his ship, looked enviously at the fancy chair layout, then opened the conversation.

"Sticking around awhile?"

"Dunno," said Benton. "That's up to the Boss. When I get Grory, I shove off."

The Martian asked several more questions, but the answers were vague and noncommittal. The conversation languished. Benton glanced at his watch. An hour had gone. He took a sip of his drink, closed his eyes and pretended to doze.

The Martian went away. Half an hour later Benton had a new visitor. It was Nestor's deputy Boss, a scarred, one-eyed ex-burglar named Fraggin.

"What's this about an ultimatum?" he demanded roughly. "Captain Zeeter said you said you were going to get Grory inside of four hours or else."

"He quoted me inaccurately, but that was the substance of it."

"Or else what?" Fraggin looked like he was about to swing.

"When the time limit expires I shall carry out the uncompleted portion of my orders. That's all. What's in 'em is my business."

"Who wrote any such orders?" growled Fraggin.

"That's none of your business either, but I don't mind telling you. Bullard did—Admiral Bullard, Commandant of Lunar Base and captain of the *Pollux*. You ought to know him. He pulled the raid on Titania."

"Yeah, yeah, I know him," said Fraggin, rubbing one of his scars thoughtfully. There was not a man in all the Trojans that didn't know him. Most had been arrested by him at one time or another.

"Well," said Fraggin after a long and what must have been for him a painful silence, "I gotta be goin'!"

"O.K.," said Benton, serenely, and reaching for his drink. "I'll be seeing you." Then he settled down to do some concentrated, if well concealed, worrying. At that moment he would gladly have given a pair of fingers for some advanced knowledge of what that sealed envelope held. He felt that he should be making preparations, not dawdling in a silky chair. But he knew he was being watched intently from three ships, and now that he had chosen his role he must stick it out to the bitter end.

It still lacked ten minutes to the deadline when the squad of soldiers approached. Fraggin led them. Benton glanced up with a pretense of indifference, and then a great weight rolled off his soul. Struggling and cursing in the midst of the squad was the man Grory, handcuffed to the soldiers on either side of him. Benton turned his head and called the steward.

"Ask the master-at-arms to come out," he said. "Here comes our prisoner."

The exchange of formal papers took only a few minutes. Then the *Texas Ranger's* tubes began to glow and a little later she was in the void, headed home. Benton decided to while the time away by refreshing his astragulation. Working out the sights made the days of the voyage pass quickly. Almost before he realized it, he was making his landing on Luna.

A prison van from Justice was there to meet him, and Benton took the receipt for Grory from an astonished looking chief marshal. He declined to answer any questions, but the moment he was rid of his prisoner, he hurried over to the Administration building.

"Well done," said Bullard, meeting him at the door. "I knew you could do it. Any trouble?"

"Not a bit," said Benton, proudly, then to make the most of his brief spot in the limelight, produced the envelope still bearing its seals. "I didn't even have to use this, sir."

"Ah, splendid," said Bullard, taking it and dropping it in the drawer. "You may go back to your regular duties now, Benton, and thank you."

"Yes, sir, of course. But I *am* a little curious. You may not know it, sir, but I was worried. I'm itching to know what those orders were."

Bullard looked at him quizzically. Should he tell him? After all he had been put in an awful hole and had come through with flying colors. Bullard felt he rated something. He would have preferred that Benton never knew, but he had asked, and it was a request that was hard to deny.

"All right, Benton, here you are. Here is the shameful thing you might have had to do."

"Shameful?" said the amazed Benton, taking the envelope and pulling off its seals. Bullard watched him intently as he shook out the contents and fished through them. Benton had expected to find several pages of closely written instructions. Instead he found only sheets of blank paper. Then, in the middle, he found a little slip of paper on which were written three brief words.

"Great God!" he cried, as the enormity of it hit him. He stared at the terse sentence in frank disbelief. Then he laughed. The paper fluttered onto Bullard's desk where the three little words lay until Bullard tore them into fine little bits. The words were:

RETURN TO BASE.

TROUBLE TIMES TWO

By GEORGE O. SMITH

A schizophrenic is a man with two personalities. Thomas Lionel was a physicist; Tom Lionel was an engineer. Unfortunately, they inhabited the same body—and Tom's objection was they used the same bank account. His.

THOMAS LIONEL, PH.D., M.M., bounded out of bed with a cheerful bit of off-tune song. He glanced at the calendar and then the clock and he grinned because life was just too good to be true.

Everything was according to plan. He'd won his first battle. Up to now it had been touch and go; at last he had established his right to co-occupy the mind along with the engineer. No longer could the engineer claim that he was an expensive detriment. He had forced the engineer into agreeing that his offering, though not directly productive, was a causative factor in the development of success. Then to top it all, he retained enough technology to be a necessary item. He must be permitted to remain if only for a source of information.

The engineer's trap had been excellent. But the trap had turned and caught the engineer. Those reams of data on the poltergeist effect had been the basis for an entirely new science that only a real physicist could appreciate—and no engineer could hope to thread his way through them without a research physicist's assistance.

He stood over the chessboard in the living room for a few minutes. The engineer was not making any great moves. Therefore the physicist thought that he might best consolidate his position. He castled to the queen's side, burying his king behind a bulwark of defenses that would defy a master chess player to penetrate in less than ten or fifteen moves.

During breakfast, he perused a thin volume of recent publication. He did not entirely agree with the theories presented; after all, the book had been written for the express purpose of getting reader's viewpoints and Thomas knew it. In fact, the book was not too interesting to Thomas but he knew that the engineer would fume, fret, and howl at the idea of having a well-thumbed volume of "Theory of Multi-

Resonant Wave Guides" in the library.

Thomas wouldn't look at the engineer's volume, laying on the table opposite. It was too un-physical. It was un-erudite. It was "Basic Theory in Micro-Wave Transmission" and the edges of the pages were loaded with application formulas, diagrams, and working sketches.

He was near the end of breakfast when the glint of reflected sunshine arrowed through the window and caught his eye. He looked, and wondered who was landing on his lawn in a helicopter.

Then he did a double take.

"Helicopter" stemmed from Greek, the "helix" or screw plus the "opter" a machine. This contrivance did not. It was not operated with air screws.

It looked like a three-wheeled coupé. It looked like the industrial designer's dream of the Plan For Tomorrow, excepting those three wheels. The Plan For Tomorrow should, by all rights, have four wheels. And, if the thing is going to fly, it should have some sort of overhead vanes, or wings, or engines, or jets, or even a skyhook. But there it was, coming down as light as a feather to make a neat landing on the back lawn.

By the time the door was open, and the passengers stepped to the ground, Thomas was standing before the little sky car, looking somewhat dazed at the name:

POLTERGEIST

"Like a dream," said the driver of the sky car.

"It should," said Thomas, covering his ignorance with monosyllabic agreement.

"Handles well, too. I think we could stand a bit more positivity of control, though."

"I'll look into it."

"I wish you would. We've got the jump on the whole world with this. We'd like to

keep it. But the thing doesn't answer to the wheel too solidly."

"Uh-huh."

"The chief engineer said, 'Jim, take that crate over to Lionel and see if he will beef up the control force a bit.' So here I am."

"O.K., Jim," said Thomas, offering a prayer for the name that had been given unwittingly. The engineer must have been a busy boy! "How are you going to get back?"

Jim looked up into the sky. "Jerry is following in the pilot model. He'll pick me up and we'll go on back thataway."

Jim nodded skyward, and Thomas looked at the growing speck that must have been the pilot model.

Thomas forgot about the pilot model. What he wanted to know was the whereabouts of the five tons of equipment that had been an integral part of this idea. He looked at the model. He wondered whether the engineer had installed the whole thing, stepping up the power by using the main part of the power to support the equipment. That did not seem possible. Any failure would cause the little sky car to collapse of its own dead weight. Besides there was not enough room in the little crate to pack all that equipment-tonnage.

The engineer had achieved the impossible. He had done away with the main part while retaining the effect.

The pilot model landed. It was not the finished job of the prototype. The cabin was squarely functional and the landing wheels were not faired into the hull. The rear end, instead of tapering gently into a narrow paraboloid of revolution, was a truncated four-sided pyramid.

Jerry did not emerge. He merely tossed the door open and shouted: "Come on—we ain't got all day!"

Thomas nodded. "I'll call you when I get it fixed."

Call who? the physicist wondered, and then forgot about it. He wanted desperately to dig into the sky car. He wanted to find out where the engineer had packed five tons of equipment. He wanted to see what made the wheels go around. No doubt the thing could be returned to its owners without calling in the police. The thing was probably recorded in the precisely kept engineering notebook of the physicist's alter ego.

The pilot model was not completely out of sight before Thomas had the power cowl off and the whole model stripped of its

servicing doors. They had done an excellent job of design; the sky car without its servicing panels was but a skeleton frame, with every line, every connection, and every control rod open for easy servicing.

And it was then and there that the physicist understood what the engineer had been doing.

Instead of the low-voltage high-current supply lines, with their attendant heavy busbars, thin pipes ran about the sky car. Seamless aluminum tubing carried the energizing current. Or, rather the space inside of the tubing carried it. At the generator end, a ten megawatt microwave generator supplied high power at ultra high frequency. At the terminus, rectifiers brought the ultra high frequency down to direct current for operation of the force-field generators.

Thomas nodded. It was not the final tenth of one percent job. It was not direct current. The diagravitic force was not constant. It operated only seven tenths of the time, and was turned off and on fifteen or twenty million million times per second. Nothing short of high-definition test equipment would ever tell the difference, however.

Gone were the massive electro-magnetic deflection field coils. In their place was a set of seventy kilovolt electrostatic plates.

Missing entirely were the variable-speed motor generators. In their place was a simple crystalline formation under permanent magnetic stress. "Artificial radio-activated crystals," muttered Thomas. "Good for a couple of years."

But the feed lines. *The feed lines.* The current carrying ability of space itself—not the metallic conductor—did the trick. Using the ultra high frequency bands, the busbars had been replaced with cylindrical wave guides. The depth of penetration was measured in microns at those frequencies—and as long as the guides were properly designed, they offered little loss in power. The current went down the wave guides by virtue of the magnetic fields created throughout the guides—magnetic fields generated in the space inside of the tubular guides.

The generator itself was one of the new crystal microwave generators and the rectifiers at the receiving end were of the same ilk.

And the five tons of equipment had vanished in a puff of tubular guides, electrostatic plates, and intermittent operation.

Thomas hit a snag for a moment. The engineer had answered his challenge. So he'd come up with the answer to the five-ton-per-

fifty-pound answer—and had gone further. Thomas knew that there was no apparent limit to the maximum power or lift. It merely set a fifty pound minimum—actually it was 49.87 pounds by measurement—under which limit no amount of tinkering would produce the effect.

He smiled. There must be something beyond. After all, small stones moved quietly in natural poltergeist manifestation; they would be able to reproduce that eventually. But for now, the engineer was willing to accept the limitation whereas the physicist would not.

He knew now. And he'd leave the sky car until the engineer returned. Let *him* beef up the control force. It was *his* baby.

Thomas put the panels back on the sky car and stood off to admire it. It was a neat job, just what the public wanted. The urge to get in and drive was a most compelling one, and Thomas succumbed. He sat for a moment, inspecting the dashboard until he had the pattern well set. Then he snapped on the power, took the wheel and pulled back gently. The sky car lifted its nose slightly, and as Thomas pressed the foot pedal, it took off on a side-line straight into the sky. He leveled off at a thousand feet and he did some scurrying back and forth in midair. It did handle a little sloppy but not enough to make the physicist uncomfortable. Yet it wouldn't stand any hedge-hopping or bridge-undercutting without a prayer on the part of the driver. Butter the controls a bit and you could thread a needle with it on the first try.

Yes, the engineer had done it again—all of which made Thomas chuckle. A bit more of this and the engineer would have such an income that he'd no longer worry himself into engineering. Then—

Thomas turned the sky car and drove across the city toward Dr. Hamilton's place. He landed on the psychiatrist's lawn and startled the doctor out of a week's growth.

"I've won," he told the doctor.

"Good," laughed Hamilton. "Mind if I ask which you are today—and how do you know you've won?"

"I'm Thomas Lionel, Ph.D. And the engineer has worked himself out of a job."

"Interesting. But how?"

"He dropped me a mess of cockeyed data, remember? Well, I unraveled it into a most interesting field of science. From it I handed him a slab full of theories and experiments that are just inefficient enough to make him

fume. He's come up with several things that make money in vatfuls"

"That, I know and understand. Go on."

"Remember, I am his ideal personality. I am a physicist, a type of person he has always wanted to be. He couldn't be a physicist because of financial reasons and so he went into the engineering field to bolster up his bank account. That was eminently practical. But now that the worry about the bankroll is over, he can turn to theoretical physics and physical research. That's me—and I've won!"

"Suppose he, himself, takes the gradual retreat from engineering into physical research?"

"Um—I don't think he's capable of it. He's been too well conditioned."

"Might well be," admitted the doctor.

"Well, as I said before, I'm just a referee. Both of you are well adjusted and good, worthy additions to society. Either one of you that wins will be a credit to civilization."

"You're a great help," laughed Thomas. "But I don't mind. This is my round, and it's my game. He's licked himself."

"I'll tell him that when I see him," said Dr. Hamilton. "But there is one thing that I must know. I want to know what makes that little tungsten box work."

"I cast the tungsten in—"

"I don't care how you made it," said Hamilton flatly, "unless it has a definite bearing on how it works."

"I made it of tungsten because the engineer would rip it apart if it weren't too tough," grinned Thomas. "Being of tungsten it doesn't matter how it works excepting it would have been more efficient if I'd made it of silver."

"Look, Thomas, stay on the subject. I want to know what's with the works."

Lionel laughed. "What's so important?"

"Look, man, I'm a psychiatrist. The functioning of the human mind is my baby. Or," he added bitterly, "it should be. But, darn it, all we can do is to surmise, theorize, hope and pray. We don't know what makes schizophrenics, or manicdepressives or any of the other mental quirks. We aren't even certain why some people are well liked while others, of almost identical get-together are heartily disliked. But you've come up with a little dingus that causes a switchover from one personality to another by merely pushing a button. Find out why and we psychiatrists may some day get to first base in psychoanalysis."

"Um — I suppose a real pathophone would be a help."

"Pathophone is a good word," smiled the psychiatrist, "but to dig into a warped mind without having the erroneous impressions and false evaluation clouding the only entry . . . we'd be able to clear up almost any mental condition. Now, how does it work?"

"I am not prepared to say. I was seeking experimental data on the 'epicenter' of the poltergeist phenomena — the poltergeist usually manifests in the vicinity of or because of some central influence — usually a person who is unaware of his potentiality. At any rate, I was setting up a series of local magnetic and electrostatic fields and then trying the micro-microwave spectrum for response. I was running up through the region between long heat radiation and micro-micro radio waves when — blooey! — I was the engineer. I switched back eventually and consolidated my findings into that little tungsten box."

"I want the dope on it."

"I'll give it to you," nodded Thomas. "As soon as I make some final measurements and consolidate my data."

"Fine. Mind telling me what causes the poltergeist?"

"As best I can. The present concept of space is that space itself is under internal strain. Force vectors in cancellation prevail, resulting in a stable continuum. Space is warped by electrostatic effects, magnetic effects, and gravitic effects. These local effects do not create a discontinuity in the space strain, and therefore no eruption takes place. Now enters the epicenter. Radiation from his mind or brain in thinking goes out and starts a very minor sympathetic oscillation in the warps and strains of space. If these strains are in the right vectorial situation, the minor oscillation builds up the response amplitude —"

"That doesn't make sense," objected the doctor. "Mental radiation must be weak. How can it induce high power?"

"It can't. But if you know radio at all, you'll recall that a high 'Q' circuit will develop very high voltages across the terminals with a very small driving voltage. Well, this is analogous to the epicenter effect. The epicenter wave causes instability in the space strains because the brain wave is not a natural phenomena of space. Then — like two sticks end to end under compression, it takes very little sidewise thrust to make the com-

pression-force collapse, forcing the sticks out at right angles. Follow?"

"But where did this energy or force come from?" puzzled Hamilton. "Isn't that a violation of the Law of Conservation of Energy?"

"Not at all. The law is still valid. It does state that you cannot get more out of anything than is put into it. The guesswork comes in deciding how the energy got there. Coal, for instance, is just a black stone. It has potential energy which was put into it by the eons of solar energy shining on the carboniferous forests. A stone has potential energy for falling. Where did it get it? It may have been carried up the hill; it may have been dropped from space — put out there by the cosmic eruption that caused Creation. Or it may have been on the edge of a gully and the potential drop made by the stream eroding the ground out from under it."

"How about atomic power?"

"You mean, how did the power get locked in the atom?"

"Yes."

"The power in the atom was put there by the universe's atom factories. Sol, and the other suns," explained Hamilton.

"But where did the earth —?"

"Creation," murmured Thomas. "Who knows? I don't. Every time somebody comes up with a perfect answer, someone else comes up with perfect data that proves that the answer couldn't be *anything* that anybody has ever used before."

"The atom factory is the Solar Phoenix. You start with hydrogen and carbon. The solar heat is such that they combine atomically to an unstable isotope of nitrogen which immediately becomes a stable isotope of nitrogen. More hydrogen gets in, making it unstable oxygen and so forth. Oxygen breaks down, releasing energy, helium, and, what do you know, carbon again, which begins to take on hydrogen again, and here we go again. But the thing is uncontrolled hell on wheels. Things go wrong due to the variances of pressure and temperature, and the oxygen doesn't always break down into helium and carbon. It takes offshoots and sidetracks. It'll add hydrogen and become fluorine, for instance, which then adds more and becomes something else, some of which trails off like the branches of a tree and do not break down into recurrent reactions. Hence the other atoms."

"I'll read about it and get the real picture. Know a good book?"

Thomas scratched his chin. "If you can find a copy of 'The Days of Creation,' by Willy Ley, the first part of the book has a description of the Solar Phoenix."

"Well, good enough," said Dr. Hamilton. "But just bear one thing in mind. You think you've beaten the engineer. Your basic trouble is just that the engineer is you, too. He has your ability and your knowledge and your experience upon which to work. He is no fool, and you can take that as a backhanded compliment if you want to. He is just as capable an engineer as you are a physicist. He thinks in different channels, I will admit. But, Thomas, remember that his extra-channellar thinking is done with the same thinking equipment as yours is, and it is no less efficient because of being divergent from your own thought-track. Your battle was won too easily to be conclusive."

"What do you expect?"

"I wouldn't know. I'm no scientist in physics." Hamilton held up a hand as Thomas started to protest. "I use 'scientist' despite your dislike of the word only because there is no term that describes both of the attributes of practical engineer and research physicist. Frankly, I'm hoping for an eventual coalition, but I fear not."

"Why view no-coalition with distaste?" demanded Thomas.

"Because both personalities offer much to the world, to science in general, and to the body that houses both of them."

"I heartily dislike all aspects of practical engineering," stated Thomas flatly. "To be everlastingly forced to retrace your own steps, again and again and again, working out the most insignificant details—bah!"

"The engineer has another viewpoint."

"I know. But the engineer in this case is here only because of his own necessity—which he himself has removed. I am the real entity; I am the desire of the engineer. I am what he wants to be. *I am what he will become!*"

"Good morning, Frank."

"Morning, Miss Elaine. Mr. Lionel isn't here."

"He'll be back?" asked the girl.

"Oh, yes. He went over to see Dr. Hamilton."

"Oh, Frank, the usual question?"

"This morning he is Thomas Lionel, Ph.D., M.M."

"Oh."

"He went to bed Tom Lionel, Consulting Engineer."

"I wonder if he remembers," smiled Elaine.

The *Poltergeist* landed on the lawn. It was silent, but a flash of sunshine caught the sleek side and attracted Elaine's attention.

"Hi," she called as she emerged from the house.

"Howdy," he answered. "What brings you out?"

"Never ask a girl a question like that," she laughed. "You'll never get the right answer."

"Why?"

"If she says 'you' it's either a lie or she's the kind of girl your mother tried to protect you from. If she says anything else, it's either a lie or she's the kind of girl your mother tried to protect you from."

"A man can't win," snorted Thomas.

"Does a man really want to win?"

"Nope," admitted Thomas. "I won't ask questions, Elaine. I'll just be glad you came."

"I'm glad you're glad."

Elaine flirted with him shamelessly, and then turned toward the laboratory building. He followed, and they kept up a running fire of light talk all the way.

"The first thing I have to do is to see what the engineer was doing last," remarked Thomas as he opened the laboratory door.

"You are a strange fellow," smiled Elaine.

"You respect each other's possessions and beliefs, though you argue madly through impersonal mediums. Still writing nasty letters?"

"Uh-huh. And playing chess."

"What's he been doing?" asked Elaine innocently.

"Don't really know. Aside from some experiments on the poltergeist effect—reducing them to practice—I wouldn't know. I doubt that he's been doing much else. I do happen to know that he's deeply interested in the epicenter effect. He may find the key to it, too."

The laboratory was about as he remembered it. There were some changes. A few of the pieces of equipment were moved; some of them were converted; and a couple of them had been built in to other, larger pieces. All of the workmanship was clean and shining.

The cyclospectrograph had been worked on with a vengeance. It had lost its haywire appearance. The D plates were all neatly machined and the high frequency plumping was all rearranged into mathematical and technical symmetry. The hours-use counter

showed constant operation for several days solid, which interested the physicist.

"He's found a use for it," he grinned at Elaine.

"He finds a use for most everything," she said. "He's a pretty sharp man."

"Thanks," grinned Thomas, recalling what the psychiatrist had said regarding the mutual efficiency of the mind in Thomas Lionel's body.

"Wonder what this crystal is," muttered Thomas.

"Looks like a natural quartz."

"Might be—though I doubt it."

"Can you find out?"

"Eventually. If it is interesting, I will. What bothers me mostly, though," said Thomas thoughtfully, "are two things. One of them is that open drum of gooey tar. The other one is that vat of used motor oil."

"The oil I understand. But what is the tarlike goo?"

"I forget its name. It is one of the natural asphalt family and it ranks high—along with chewing gum—among those substances in which I would least like to bathe."

"Um. I detect a tone of distaste," laughed Elaine. "Here's another little tricky gadget. Looks sort of like your tungsten box."

"Oh?" asked Thomas.

"Yes . . . say, Tommy, what's an epicenter?"

"Ah . . . why?" asked the physicist, his attention on the cyclospectrograph.

"This box has a little sign on it. It says: 'Be an epicenter' and some other stuff."

"The epicenter is the main feature around which the phenomena revolves," explained Thomas idly.

"Oh."

Elaine fondled the little box. Her forefinger touched the button, felt its smoothness. In her mind was knowledge of the dire effects caused by tyros who push strange buttons. Certainly there was no curiosity deep enough to override her own good sense. But subconsciously the natural impulse to touch wet paint, to kick the package on the sidewalk, came to the fore and Elaine stood there, looking the box over with her forefinger set against the button.

"Be an epicenter," she repeated.

It registered. Like a swift montage, events past, present and future sped through Thomas Lionel's mind. He went from the basic idea to the foregone conclusion in three lightning-quick steps.

"NO!" he yelled.

But it was too late.

And through his mind there passed a vision that made him swallow. Elaine—dressed in a simple frock of printed silk, garnished from the top of her beautifully coiffed hair to the bottoms of her exquisitely shod feet in an awful mixture of used crank-case oil and a tar-asphaltum—

In vain he tried to cross the twenty feet that separated him from the girl. In vain he tried to get there, to snatch that devilish box from her hand, to grab it and hurl it far enough away so that the effect wouldn't even cause a bad splash.

The idea of seeing her all gooped up. That made him shout hoarsely.

It shouldn't happen to a dog—

And then it hit him. He was fully fifteen feet from the girl and her little instrument. A half-hour's observational time went into milliseconds in Thomas Lionel's mind as he watched the open drum of asphaltum compound rise out of the open top in a parabolic arc. It arched high, just missing the ceiling, and passing in an ogee curve to miss a stanchion. Forward it came, to curve downward upon his own bare head.

Simultaneously, he was drenched from behind by the arching column of oil from the vat behind him.

In twin, converging arches, Thomas was inundated and thoroughly soaked from head to toe with a whirling mixture of oil and tar.

He cleared his eyes with squeegeeing fingers. Elaine, holding in her laughter with effort, showed him the box.

Above the button it said:

BE AN EPICENTER!

Control that mysterious power. Exert the forces of hidden nature in your behalf!

PRESS HERE!

"He's found it," croaked Thomas. "He's found it!"

"And you're a mess."

"That I am," said Thomas shaking off some of the gluck that was trickling down his arm. "That I am."

"Don't you mind?"

"I have my own revenge. My own, particular means of revenge. I'm sorry, Elaine. I must now leave you. The engineer has had his fun—now, my sweet, he may have the compensating task of cleaning up!"

Thomas turned and found the little tung-

sten box with its label: BE AN ENGINEER! and pressed the button.

Tom Lionel, Consulting Engineer, removed his finger from the button, and turned to see Elaine.

"Was it funny?" he asked.

"Very much so," she laughed.

"Who pushed it?"

"I did."

"Too bad. I'd rather he got it by his own machinations."

"He tried to stop me—"

"Uh-huh. Maybe it's better the way it is,"

Tom laughed in spite of the load of discomfort he was carrying. He wiped some of the oil and tar mixture from his face and continued. "The instantaneous feeling of horror at the idea of seeing you glucked over with this mess must have given him some shock. No doubt he thought that whatever would happen would happen to the holder of the epicenter locator."

"Now what are you going to do?"

"Me?"

"Yes. You're going to clean up, aren't you?"

"Not me."

"How are you going to . . . to—?"

"Cause his return?"

"Yes."

Tom considered. "I guess I'm licked. He'll just use this box of his."

"Can't you undo it?"

"Nope. It's just too tough. I'd go to work on the insides with acid if I could get inside of it. The outside is possible, but I haven't enough acid to react with the whole darned box. But I'm going to get something. Well, I'm going inside and take myself a shower. Wait—I'll be back."

An hour later, Tom Lionel emerged from the bathroom. Frank, the houseboy went in with a humorous shake of the head. He'd seen the embryonic mess and knew what there was to do.

"Now what?" asked Elaine.

"Well, you see, the thing is slightly out of hand," exclaimed Tom. "I started this thing because my physicist friend got out of line and shot the entire bankroll on a pile of scientific flapdoodle." He took a cigarette case from his pocket that glinted and iridesced as he opened it. "I've been able to use nearly everything," he grinned, "including the ruling engine," he waved the grating-ruled cigarette case at the girl. "Marten shelled out about ten thousand bucks for

the secret of the finish on this case. He's ruling jewelry now and it is the largest thing since the discovery of diamond-faceting. I'm also getting a five percent royalty on every grating-ruled piece that's made. It ain't hay.

"Anyway, it backfired on me because I presented him with something that offered him, not frustration, but instead, he proceeded to make something of it that no sensible engineer could ignore. And," he continued ruefully, "it did two more drastic things. One, it made his continued influence necessary. There are too many things that he knows to dispense with his type of thinking. Number two, my success in reducing his discoveries to practice has resulted in the generation of a good income. That has been the basis of our argument. He's impractical to the extreme, but as long as the body is fed, both materially and intellectually, so what? So instead of finding myself the winner, I'm actually fighting for my own existence." Tom went bitter. "A fine thing. To be forced to fight for one's existence because of factors that emanate from his own success."

Elaine put a hand on his shoulder. "Don't be bitter," she said softly. "I . . . I'll miss you—"

"Oh, don't worry," he told her in a strained voice. "I don't intend to give up." He cradled her face between his hands and looked her straight in the eyes. "If, as, and when, I—though the concept is purely hypothetical—might possibly lose—mind, I have no intention of losing since I intend to win unconditionally and maintaining the present status is intolerable—the other guy will have been in such a mad battle that he'll be forced into accepting some practical tenets as a factor. Then he'll be more like me."

"This may hurt," she said seriously, "but you are not as different as you might think."

"He hates the thought of practicality."

"And yet," said Elaine, "if all were engineers who would take time to seek out the little-known facts?"

"And," snorted Tom, "if all were physicists, we would still be hanging from trees, tossing coconuts at one another whilst a few bright dawn-men were contemplating the possibilities of using fire—but, of course, doing nothing about it. After all, once the physicist has considered all the angles, he's through. He doesn't give a howling hoot whether what he's considered is practical—after all, it *is* interesting and that's all he cares about."

"But—"

"Since the physicist's thinking is actually based upon past proof—made by practical engineers—the contemplation of fire would be as far as they'd get. For there would be no engineer to ever use it to show its practical possibilities! That's based on my horribly hypothetical world where all were physicists and none were engineers."

"Who invented the bow and arrow?" asked Elaine.

"Ah, Ug, or Unguh. He, she, or it was an experimenter. Y'see, Elaine, at one time there were neither engineers nor physicists. Alexander Graham Bell was not—in our present day sense—a physicist nor was Morse, or Edison or Lodge. Nor were they engineers. Somewhere since then the line has been divided. In them days they were basement geniuses. But now," he said bitterly, "There is one set of people who think up cockeyed things and another set that figures out what to do with them."

"Y'know," smiled Elaine, "I think that getting together would be the finest thing that ever happened to you and the physicist."

Tom backed up three steps. "Look," he snapped, "I've heard a lot. I can stand for a lot. But that's something that I can't even consider."

"Both of you offer so much to—"

"Yeah," he sneered, "and we're both solid citizens! Hooey."

Tom stalked over to the chessboard and looked down. "Overconfidence is a dangerous thing," he said with a smile. He moved a bishop halfway across the board. "There," he said with a satisfied air, "that should be obscure enough to fool anybody, even Lasker."

"Who's Lasker?" asked the girl.

"One of the chess masters."

"Oh."

"Now," he said, "I'm going to ask you a favor."

"Yes."

He grinned. "It might be quite personal."

"In which case I'd ask you a favor, too."

"What kind?"

"That depends on the nature of the original request. What's yours?"

"I'd like you to write a few letters for me."

"In which case there'll be no counter-proposition."

For three solid hours, Elaine sat at the typewriter. At the end of that time, Tom smiled, patted her on the top of the head and said: "You've been a good girl, kiddo."

"Thanks," she mumbled. "But there are things about your physicist that I do admire. He never makes his women work."

"Impractical lad," laughed Tom.

"Impractical, but fun."

"Bah. You, too, huh?"

"Well fun is—"

"Impractical."

"When you find time to be impractical," said Elaine, rising, "you may invite me over long enough to find out just exactly how practical an impractical batch of fun can be. Practically, I am an impractical asset with indispensable attributes." She arched one eyebrow at him and leered in a ladylike fashion. "You'll find out," she told him.

"Dinner?" he suggested.

"That I cook? Ah-ahhh." She touched his cheek lightly and then said: "I gotta go. I'm late as it is. Sorry, Tommy. But that's how it stands. Take it easy—and I'll be seein' you."

Tom Lionel, Consulting Engineer, saw her away, and then returned to his desk full of work. He sorted papers, did some computations, manipulated some theory, and then sat still, thinking out his plan.

His evening was full. He experimented in the laboratory until the wee small hours, and then spent another two hours contemplating, with relish, the results. He finished by writing another letter, taking a last look at the chessboard, and then retired with a final look at the calendar.

Thomas Lionel, Ph.D., M.M., awoke with a feeling of self-satisfaction. The world was his onion and he knew it. There was nothing to detract from his success. After all, every time he returned it was because the engineer had been frustrated. The same thing had happened again.

He breakfasted lazily, reading the mail and the notes made by the engineer. The notes satisfied him. He added some notations and made some calculations himself that would further frustrate the engineer when again possession of the body changed minds. He noted with relish that the bank account was growing by leaps and bounds—a backfired result of the engineer's own machinations.

How long it would be before the engineer was completely vanished he did not know, but it would not be too long.

A few more developments of the poltergeist effect, another series of new sciences—with their attendant publicity, sales, and, of course, royalty and licensing fees—and the

engineer would find nothing in his life worth living for. He then would turn, bending his naturally curious mind to the more obscure realm of physics.

In other words, the mind of Tom Lionel would become congruent with the mind of Thomas Lionel. Tom Lionel would vanish. Thomas Lionel, the ultimate desire of the engineer's mind would take control and the period of schizophrenia would end.

It was more than just logical. The consulting engineer wanted to be a physicist. Now that all barriers were removed, he would.

The hearty dislike of physicists that characterized the mind of the engineer was sheer jealousy; psychological block; that factor of the mind which, when denied a desire, hates all others who successfully achieve it.

Aesop called it "Sour Grapes."

He noted the calendar for the day. He nodded. He was to see a group of physicists from one of the government bureaus. That would be O.K. Later in the afternoon there was a conference between a group of production superintendents who were about to start producing items using the poltergeist effect. He made a notation to investigate the epicenter effect and see what could be generated out of it.

The latter was interesting, and presented a problem.

He arose from the breakfast table and sought the chessboard. He laughed quietly and advanced a knight to cover his opponent's bishop. That was in accordance with a well-known theory of chess. If, after several moves, no apparent pattern is manifest, attack with a minor piece—or even capture or exchange minor pieces. The plan of attack may be obscure to you, but the chances are that a bold counterattack or exchange of minor pieces will disrupt the attack.

Well, all was well.

His plans? They were simple enough. He would carry on. He would do more research, and confound the engineer whenever next he returned. It was as simple as that.

"The poltergeist effect," said Thomas, facing the group of government physicists, "is still in the field of research and development—and wide open on all sides. Much is still unknown about it, in spite of the fact," he added distastefully, "that certain aspects of it have already been put to work."

"You are all familiar with the initial theories, though I shall touch upon them briefly here again. The spatial strains, when

under the influence of solar gravity, lunar gravity, and terrestrial gravity all in proper vectorial relationship, add to the spatial strains caused by the magnetic fields of the three main bodies mentioned. The electrostatic fields in the terrestrial atmosphere—the same which cause lightning in another manifestation—also add to the spatial strain. These are all natural phenomena.

"The radiation of a thinking brain, gentlemen, is not a natural phenomena—not a natural characteristic warp in space," he corrected with a slight smile. "It causes a vibration in the region of the end-hysteresis loop of space itself when space is saturated to that threshold by the natural warps and strains. It exerts a triggering action that releases a more powerful nonphysical radiation, which in turn releases the space strain that causes—things—to move. Also this final buckling of the space strain releases a component of the initial wave which again exerts the triggering action. The proposition is self-sustaining as long as the gavitic, magnetic, and electrostatic effects are such as to maintain the saturation of space at the hysteresis-loop level.

"However," continued Thomas, "it has been discovered that these potentials are not only released, but are dirigible, under the complex force-fields generated by the equipment so far developed. Some effects are akin to gavitic effects—the real nature of which none of us can state, or even guess."

"Your statements border on the fantastic," smiled the head visitor, Lowell Johnstown. "Were it not for the fact that your statements have been accompanied by experimental proof, we would be forced to discount them as the ravings of an insane mind. However, your paper before the American Physical Society plus your experimental data—which we all have duplicated—gives proof. The nullification of gravity—"

"Not nullification," insisted Thomas. "I do not claim nullification. The effect is a development of diagravitic force."

"The difference—?"

"Does exist. The generation of a counter-force may, in some cases be considered nullification. But nullification does not describe all aspects of counter-force. I prefer to use the counter-force definition, since vectorial components may be generated in the object under observation. These forces have no relation to the force of gravity acting upon the object, other than can be similarly observed in the free flight of a projectile, where both the forward motion

and the gravitic attraction cause summation of forces into a parabolic path."

"I'll accept your remarks. But we are here to discuss the epicenter effect."

"The epicenter is a generator of the radiation which causes release of the potentials indigenous to all material bodies. This radiation is of a complex nature. It requires both physical, electrostatic, electromagnetic generators to produce the radiation that triggers the poltergeist potential.

"Incidentally, gentlemen, this may be why some people always seem to be getting into accidents. I believe that we have the true answer to the 'Accident-Prone' within our grasp."

"How does this manifest in experimental work?" asked Johnstown.

"By crystallographic generation of the force fields coupled with the radiation of the brain in question. The effect is probably more pronounced with a man whose prevalence toward poltergeist effects and accident prone-ness is higher than normal. I am seeking such a man now. By further filtering through crystals the random release of poltergeist energy is directed and controlled so that a desired object may be moved almost at will."

"This equipment—can we hope to get it in practical size?"

Thomas considered and then said with a touch of disinterest: "It is possible. No doubt the practical viewpoint will appeal to many."

"To sum up your statements," interjected Johnstown, "We have an effect that will cause the movement of any desired object by the use of nonmaterial supporting and actuating means."

"Right. And one other interesting effect. The generation of direct current electricity is also possible in the same manner. I might even add," he concluded with a smile, "that manifestation of any physical effect is possible."

Johnstown packed the pages of data in his briefcase. "You have unlocked a veritable universe of basic study," he said. "You should feel gratified. We'll keep in touch with you, Lionel. And, we'll return once we have had a chance to digest this information. Also, we'll furnish you with whatever observations we make."

Thomas watched them leave. He smiled. Adding to the discomfort of the engineer at really having nothing left to work for—the bank account being filled daily—he was tossing his discoveries to the world of

physicists, and other engineers and scientists would take over, more than likely leaving the engineer foundering in a sea of uncertainty.

The group of production superintendents entered and seated themselves. Their spokesman, Charles Norden said: "We are here because of certain difficulties we are having in making your effect operate satisfactorily."

"I can, of course, assist you," smiled Thomas, affably.

"Good," answered Norden. "Here is the first difficulty." He pulled from his case a sheaf of blueprints, and he spread them out across the desk. "Our design department claims that the arrangement of knobs on the panel is inconvenient. A suggested change is to put them like this."

Franklen, who was one of Norden's associates objected: "That means you'll have to shunt the snivvy over here. That lengthens the leads and causes instability."

"But we can reinstate the stability by running the leads through a dingink."

"That won't help. Shielding the leads only adds distributed capacity."

"It works. Only one percent loss in efficiency and better stability, believe it or not."

"Well," said Norden, "I'll leave it up to Lionel, here. What do you think?"

"I'll have to consider it," answered Lionel.

"You understand that it is important," urged Norden.

"But why?"

"Why?" exploded Norden. "Great Scott! Look, Lionel, the arrangements of these knobs are such that the operator must cross the calibration-scale with his hand while adjusting the output. That means that he must either assume a cramped position or he must adjust, observe, adjust, observe, and so on, taking the adjustment of output by increments instead of a stepless arrival at the precise value."

"Um."

"Look, Lionel, we aren't toying with the job of lifting a standard weight. We are hoisting three hundred tons of semirigid structure that mustn't be joggled too much."

"I see. Well under the circumstances I'll take quick action and give you the answer within twenty-four hours."

"We can't have it immediately?"

"I'm afraid not. I must make some tests before I can pass judgment on the matter."

"We are more or less forced to accept your time-limit," said Norden glumly.

"Please understand that time is essential because every minute that our production line is down costs the company about twenty dollars."

"I'll get your answer in twenty-four hours," Thomas faced another man. "And your trouble?"

He was Mawson, of Technical Manufacturing, Inc.

"You specify this part," indicating another set of blueprints, "as pure copper. Anything else do?"

"It carries high frequency. Copper is best—unless you could get silver. If that is—"

"Look we're making production and hope to hit fifteen thousand completed assemblies per day. That piece would weigh about two pounds. Silver is out."

"What's the matter with copper?" asked Lionel.

"It cuts like cheddar cheese, gums up the tools, and is generally not good for close tolerance work."

"The first one was all right."

"Listen," said Mawson, "you carved the first one out by hand and I'll bet it took you four or five hours. We're going to run 'em on an automatic screw machine at the rate of ten per minute."

"So?"

"I want to use free cutting brass."

"You'll lose conductivity—"

"The rig will be only seven percent less efficient. Tests—"

"Your tests may be right. But seven percent loss is pretty bad," grumbled Thomas. "I'd say no."

"Then I'm going to ask you to name a substitute. What alloy would suffice? I want a free cutting alloy that'll come off of the tools clean."

Will White spoke up at this point. "We've got a bit of regeneration in our driver system," he said.

"That's easy. Have one of your engineers remove it."

"Can't. Anything they do to remove regeneration also destroys the driver's efficiency."

"Efficiency," said Thomas, "is the inverse function of the frequency of drive divided by the number of full-phase poles in the genedyne. Expressed by the quadratic equation in which A equals the number of full-phase poles—"

"But we can't get rid of the regeneration!" exploded White.

"Look, that driver is as simple as ABC.

It has and will be a standard assembly for seven generations past and forward. Now don't tell me—"

"I'm telling you that we're burning up our test stands left and right. How long can you take a forty percent regeneration in a hundred kilowatt genedyne?"

"Well, not long," admitted Thomas. "You understand the principles involved?"

"Not entirely."

"I'll explain. The force-fields created by the full-phase poles under the power output from the driver create a nonelectromagnetic field radiation. The intensity of this field is a function of the driver output, derived tertiarily through the pole system. Now the development of the field radiation creates a space hysteresis that—"

"Look," snapped White, "I don't give a care about field theory. It doesn't apply in my job. I merely want to know what to do about the regeneration."

"How can you work without understanding the theory?" asked Thomas with a sneer.

"How can a musician play a pipe organ without a course in first year physics?" shouted White. "Just tell me what to do!"

"Tell 'em to retune the driver to another band."

"They aren't certain that the pickup loop is itself tuned or not."

"It is."

"Then that means tuning the entire feeder line."

"Naturally."

"But the feeder line is a silver plated die casting."

"Change the dies," said Thomas.

"May we charge you for them?" asked White, sweetly. "And also for scrapping the three hundred and seventy thousand parts we have cast already?"

"Why get so far ahead?"

"Look, Thomas Lionel, we did it because it was cheaper not to tie up the die-caster's shop in weekly dribbles rather than get the whole order in a lump. Now—what do we do about regeneration?"

"Anybody can clear up regeneration," snapped Lionel.

"Good—you show us how. That's what we're retaining you for. Your developments and whatever technical assistance is required."

Thomas Lionel looked up, and scanned each face at the big table. "From left to right, can you state your problems?" he asked.

"Plating specs on the genedynne."

"Problem in suspension during process."

"Can plus or minus fifteen percent electrical components be used in place of ten percents?"

"We still require the alignment procedure."

Thomas held up a hand. "O.K., fellows. Submit your problems in writing and I'll furnish the answers in twenty-four hours."

Norden bobbed his head in agreement. "I fear that I shall call for cancellation of contract and the forfeit sum if your answers are not forthcoming."

Thomas nodded silently. The forfeit—if this whole gang bopped their contracts back he'd lose his shirt.

He watched them file out. And his eyes dropped from their stare out of the window to the pile of questions on the desk. A pile of production problems!

Sheer, unadulterated hell.

Well, he might as well call the engineer and let him handle this. It was one of the things that the engineer got a kick out of. As a physicist, this was not his job—and as an intelligent psychic, he did know how to get things done. Everything for its own use; if he didn't know, he knew where to find out.

Thomas went out to the laboratory and faced his tungsten box. A twinge of wonder flashed through his mind. It bothered him.

Was this an admission of partial defeat?

Not at all. This was good sense. Call in the engineer to clear up this mess, since his income and well-being depended upon it. Once these contracts were clear and closed—well, time enough!

He pressed the button.

And Thomas Lionel, Ph.D., M.M., pressed it again.

And again—

And again.

And then took a suspicious glance at the oxy-hydrogen torch on the table. A growing fear hit him. Tungsten wouldn't budge under an acetylene torch. Acids were not too effective, and plain, old-fashioned cutting tools were sheer foolishness. But heat the block white hot and hit it with an oxygen lance—

Thomas looked on the back side.

Uh-huh. The engineer had enjoyed himself. The back side of his little tungsten wave generator had been poked full of ragged holes; cut in ribbons with the oxygen lance, and generally made messy. The wave-

guides and channels were all un-terminated and laid open. Pushing the button wouldn't do a thing.

It definitely would not call the engineer.

He had twenty-four hours to solve the production people's problems.

And Thomas Lionel understood. The engineer had his own little trap. No doubt the engineer would go fishing if called, and only the physicist was really interested in fighting this thing out to the bitter end. The engineer, losing already, had only a bank account to throw away by not working. And the engineer could get another one soon enough if permitted to do so.

Twenty-four hours.

Thomas headed in toward the house to get his notebook and his engineering notes. He'd have to take over the engineer's job, no matter how distasteful.

Out of one corner of his eye he saw the chessboard and he stopped short. It had been the odd angle that gave the trap away but his moving of the knight had opened a line right down into his own defenses. On the next move there would be a severe attack against his queen, and in saving that, he'd lose the bishop. If he sacrificed the queen, he was as good as lost. In fact, it was checkmate no matter how long he fought; no matter what he did, it was only a question of three moves minimum or seven moves maximum.

Well, might as well give up. This game was gone and there was no use in fighting a losing battle—whipping a dead cat—

He opened the drawer and removed the little sign normally used to terminate a game without going through the formality of a checkmate.

But the sign had been augmented. It read:



A MATTER OF LENGTH

By ROSS ROCKLYNNE

"How long is a minute?" doesn't ordinarily make much sense—but on that strange planet, a minute was the wrong length. The oxygen in the air was the wrong length, too—but they were the right length to take the measure of Joe Henderson's deadly little problem!

CROWDED and cramped! The little cell in the depths of the Galaxy Guard warship was neither wide enough nor long enough to accommodate two full steps of Joe Henderson's booted legs; not high enough to keep his rooster's plume of riotous mahogany hair from brushing fuel soot off the ceiling.

He hunched his blood-stained black-and-purple uniform—the uniform of the Galactic Third Pro-Hypno Army against the confining bars, blunt-tipped fingers showing little circlets of white-against-brown where had been the flashing diamond rings his captors had stripped from him. He scowled with the full power of his glittering, agate-blue eyes. Someone, fearfully, indecisively, was coming down the ladder.

"You!" Joe Henderson called gratingly. "You with the tin earrings and upswung nose! Come here and get a good, first-hand look at a hypno, you Sensitive!"

He could see her, diminutive, beautiful and green-eyed with a hard, glassy perfection, standing in the bend of the passageway which led to the silent engine room. One small hand was to her breast, her crimson lips were parted with fear. Her nose was hidden by a tiny breathing mask, from which a hose fell away to a small oxygen tank strapped to her hips.

She spoke at last faintly. "How'd you know I was a Sensitive with the anti-hypno barrier around your cell?"

"I know it, all right!" he boomed, transfixing her. "You Sensitive's are forbidden to see, speak to, or look at a hypno. In two weeks of captivity, I haven't seen you before. And you're scared, scared silly. Captain MacDougall forbade your coming down here and you're scared of what he'll say when he finds it out."

"I'm not scared," she whispered.

"And looking at a hated swine of a hypno has turned your backbone to jelly, green eyes! Why? Why should you be scared of a hypno, when sooner or later, after you've helped the powers that be track down the

last of the hypnos, you and your kind will feel the dagger of the Expurgation, too?"

She seemed to sag in the fresh blue-and-green-striped glass-straw suit which touched off the eye-riveting charm of her body. She retreated a full step, and her forefinger waved quickly, from right to left, across her eyes, as if to break some spell.

His laughter at that had an ugly, snarling undertone. "The *ahypno* gesture! You ignorant Sensitive! So you still take after the old superstitions. You with your heartless training, you, the student of the thought-control schools, the neophyte on your first hypno-hunt?"

She turned slowly scarlet. She said in a muffled voice, "My grandparents taught me the *ahypno* gesture. Perhaps it'll take more than a lifetime to rid myself of it. The authorities tried to, when they discovered I was a Sensitive—but it didn't take."

His hate for her was helpless, berserk. His great hands tensed on the inner bars of the cell door, as if he might tear them from their mooring. Not much chance. Besides, what would happen if he were free of the cell, free to slap her down as he felt like doing? One more atrocity to be blamed on the hypno. *Joe Henderson, one of a race of self-styled supermen, attacks helpless girl. Beware of the hypnos! Kill the hypnos! Not until the last double-brain is dead will any of us be free!*

He breathed hard. No. Not hate. Besides, she was a Sensitive. No matter that her mind was geared to the powerful emanations which flooded from his; no matter that she had guided the Galaxy Guard warship to the third planet of the red star Antares, where he and the shattered remnants of his Pro-Hypno division were hiding out; no matter that he alone was captured alive, the rest of his division—Ordinaries all: non-hypnos—wiped out. That she had accomplished his demise did not matter. That she was a Sensitive did; a Sensitive, gorged on brutal lies; inclosed in a cage of restrictions

and commands by men who were secretly as inimical to her as they were to the hypnos, men whose advantage it was to keep the incredible truth from her.

"Come here, Miss Keithea," he said in an altered tone, yet with arrogant command. "You've seen me now, talked with me; you can't undo the damage. Besides, as you say, this cage is inclosed in the anti-hypno barrier. I couldn't get my mind through the barrier to perform the mental atrocities they accuse us double-brains of performing, could I?"

She was a swift glissade of movement. Her fear and uncertainty were sheared away by the sudden glitter of hard purpose in her eyes. She faced him through the cell.

"That's the reason I broke orders and came down here," she said huskily. "To find out if you were getting through. I think you are!"

The great shaggy brows over his biting, mocking eyes lifted toward his thick hairline.

She continued lowly: "We've landed."

"I know we've landed. Felt it. Where?"

Somewhere within a few thousand light years of Canopus."

"Lost?"

"Lost. The ship scraped the fringe of a dust cloud. It was like traveling through a tunnel of sandpaper a million miles long. Ground away our cannon controls, periscopic eyes, and the starboard repellant plates— You knew that? That we were lost?"

There was a sound deep in his throat that was difficult to interpret. "Maybe," he snapped. "After all, I killed your navigator—after he tried to kill me, of course. I guess you were bound to get lost after a scrape like that one. Now you're worried. Strange planet, maybe?"

"Strange!" Her small white fingers shook as she brought out a cigarette. She scraped the tip across her palm. The cigarette smoldered, sent up a slow spiral of smoke. She hurriedly placed it between her lips, tried to inhale. The cigarette went out. She dropped it with a little jerk.

"That's an example! No oxidation on this planet. Or very little. We can't breathe this planet's air. Torture to draw in a breath. Thirteen pounds pressure, same constituents as Earth's. But it wears you out sucking the air in and then it doesn't have much tendency to combine with the body. Just as

much trouble to push it out. Norlavich says "

"Norlavich?"

"A paying passenger we picked up on Mochus II, a few days back."

Joe Henderson's eyes flickered briefly. "Stranger?"

"Stranger. He says," she rushed on, "that the oxygen isn't long enough some such thing. He's a scientist of sorts. The rest of the planet isn't long enough either—in the time dimension. It's fairly warm, and there're flowers and trees and grass and . . . and animals. Twelve-legged animals with eight of the legs doubled up inside their fur. Everything's absolutely motionless. You can't pick flowers or pull the petals off or bend the grass. The grass is like green wire. Try kicking the motionless animals. It's like kicking neutronium. They just stand there, with life in their eyes, but they're just statues."

She was gritting the words out. Her eyes searched his face piercingly, as if for a clue. Joe looked back at her unblinkingly. She went on.

"We landed in the middle of a native village. We couldn't help that. The natives are giants, twelve, thirteen maybe fourteen feet tall. Two arms, two legs. They're motionless, too. Like rock." She blinked, shook her head. "Well, Joe Henderson, I guess I'm telling you something you already know!"

"Don't know a thing about it."

Her red-gold head of hair came up, savagely "Don't lie," she said thickly. "It's you that did it, isn't it?"

"No," said Joe Henderson calmly.

"You're a liar! All you hypnos are liars and child-murderers! It's a little hypnotizing trick you've pulled to make us all nervous—maybe hysterical later on! Why don't you admit it?"

Her voice stayed down, but she was overwrought enough to make the *ahypno* gesture, several times, unconsciously. Joe Henderson calmly watched the flashing little finger crossing her eyes. He felt part of his mind flowing along a channel of horror—horror of the witchcraft sign she made.

"Very well, Miss Keithea. I created that planet out there—for your amusement."

She moved back, pressed rigid against the corridor wall.

"How?" she said harshly. "How can you do it through the anti-hypno barrier?"

"You've been answering your own questions, Miss Keithea."

She relaxed, the composed beauty of her face coming back again. "There may be only one way to find out if you're actually working on us through the barrier; kill you," she stated coldly. She turned and started back up the passageway. She slowed down, turned as slowly, stared unfocusing at a spot over his shoulder, as if not wanting, not daring, to meet his glance.

"You said that sooner or later, we—the Sensitive—would feel the dagger of the Exurgation, too. What did you mean?"

Joe's lip curled scornfully. "What I said Let the thought curdle in your brain for awhile."

She recognized his refusal to enlarge. She said shakily, "It's a hyno lie, of course," and then she went up the ladder.

Captain MacDougall came down to the cell two hours later, after the food-beam had magically drawn away the remnants of Joe's meal. He was wearing the pure-white uniform of the Galaxy Guard, the blazing jeweled star, symbol of his anti-hypno oath showing predominantly on his sleeve. He moved up the companionway toward Joe, and Joe looked at him incredulously for a second. He was walking as if forcing his way through something that was far thicker than air. It was hardly perceptible, that slowing down of motion, and yet—

MacDougall stood in front of the cell, his polished fish-eyes, set in the round red frame of his face, fixed on Joe Henderson.

"I was talking with our Sensitive, Keithe Drummond, Joe. Seems to think you're responsible for our present troubles. A pack of nonsense, of course, but I came down to check up."

His red cheeks puffed out. Nobody ever hesitated to call a hypno by a companionable first name. Joe said nothing, and MacDougall, with a heavy, puffing sound—he was round and short and overfed—stepped out of sight for a moment, and audibly jerked open the casing to the anti-hypno barrier meter. "Nonsense" he repeated, coming back and glaring at Joe's scornful aloofness. "Barrier's full on. You couldn't get through. Stuff and nonsense about that planet coming from you. Those neophytes at the game can make themselves believe anything."

"Well then," said the giant in the blood-stained uniform "that's that."

"I'm not so sure it is, Joe." The bulging, glistening eyes blinked, swept him up and

down like a brush. "You sick? You're twitching."

Joe was not sick. The blood on his uniform was that of the navigator when they had trapped Joe in the cave. Joe had literally torn him apart and flung him over the cliff. The rock somebody had dropped from higher up had landed with thudding impact on Joe's head of untamed mahogany hair, but all it did was to make him groggy enough for capture. He was not sick, and he certainly was not twitching.

"Never felt better in my life."

"That's fine, Joe. Joe, we may have to kill you."

"That," said Joe, "is nothing new. You've already murdered nearly a billion of us. What's one more?"

"Murdered?" MacDougall smiled. He pointed out, "Killing something we don't consider human isn't murder. And even at that, murdering a group of people who have menaced civilization for as many hundreds of years as you hypnos have couldn't be a crime by any stretch of the imagination. Try to be fair with your outlook, Joe."

Joe ignored that demand. "You're sure we've menaced civilization?"

"Documentary evidence."

"Maybe," Joe suggested, the documentary evidence is a pack of self-perpetuating lies perpetrated by self-perpetuating religions, rackets, and Humanity First organizations for the sole purpose of furthering their own ends?"

MacDougall tossed his head with nervous impatience. "Ten years ago the hypnos started the Second Galactic War, didn't they?" he charged.

"That's what the Ordinaries say," said Joe calmly.

"I never saw any evidence of you hypnos getting killed in that war," MacDougall said thickly. His face was darkening.

Joe said, "Self-perpetuating lie."

"Don't throw your lying hypno talk at me, you double-brain," MacDougall shouted, lurching forward and grabbing the outer bars of the cell door. "You and your kind have been digging your roots into humanity, sucking our life away. Why . . . why, it was a hypno killed my youngest daughter!"

Joe was apparently casual. But as always, when facing these appalling accusations, the unmoved brownness of his face was no indication of the sickness in his stomach. The doctor who had tended MacDougall's daughter had, after the girl had fallen into

a fatal coma, been discovered to be a hypno. The hypno medico had died by mob rule. That had been many years ago, shortly, before the Galaxy-wide Expurgation got into full swing.

Joe's great chest slowly rose and fell. Long ago he had learned the depthless futility of this argument—a feud that was as elemental as white and black. He watched MacDougall's figure through lidded eyes. All this while, something strange about MacDougall's voice, which hovered near a falsetto, had dropped several notes toward the masculine scale; and the words were drawled, had a tendency to blur into one another. The blinking of his eyes or otherwise rapid motions of his body were now of seconds' duration. MacDougall seemed to be slowing down—

And he had stated that Joe was—twitching.

Joe released his breath, taking his glance from MacDougall's glare. "Never mind *that* argument, captain. Purely as an academic question, instead of killing me to find out, why not leave the planet and keep on going back to Earth? Just because you're lost?"

MacDougall released his grip on the bars with such a slow motion that it was as if he were pulling his hands away from an adhesive surface. He said coldly, "No. If we could get up in space again, we could keep on going and get ourselves lined up with some familiar landmarks."

"Why not simply weld some spare repellor plates on?"

"Can't. The welding torches use oxygen, and we've pumped all the ship oxygen into these small tanks we have to carry around in order to breathe. So we have to use the planet's oxygen to combine with the acetylene. Only it won't combine."

"Oxygen isn't . . . ah . . . long enough?" Joe questioned.

MacDougall started, turned pale. His nostrils dilated, and though he had lived with himself too long to be caught making the *ahypno* gesture for a moment it seemed his finger started to raise to his eyes.

"How did you learn that?" he snapped harshly. "Come to think of it who told you we were lost or that the repellor plates were sheared away? All the men have been outside the ship." He gasped then, in comprehension. He exploded, ripping out curses. "The Sensitive Keitha Drummond was talking to you!"

Joe admitted that she had.

"What did you tell her?" MacDougall demanded.

Joe smiled mirthfully, quizzically. "What *would* I tell her, captain?"

"I wonder," snarled MacDougall. He looked with baffled eyes at Joe, and Joe shrugged his shoulders uncaringly.

MacDougall slowly wiped his sweating face. He projected a rigid finger at Joe. "Don't forget, Joe. If you're causing that . . . that planet up there, better turn it off! I'm warning you!"

MacDougall turned, started back up the companionway toward the ladder. Joe quickly pressed himself against the bars, following him with his eyes. His breath caught. It was as if MacDougall were moving through deep water, raising a foot, leaning forward against the weight of the water, then slowly, putting the foot down—as if gravity, certainly near an Earth normal, had given up part of its strength.

The sound of MacDougall's footsteps was like low drawling booming sounds, to Joe's ears. He wondered if MacDougall was aware of that.

MacDougall wasn't aware, for with much heaving and normal puffing he walked up the ladder, helping himself by the hand rails on the side. On the upper deck aft of the main air lock, he saw Keitha Drummond running toward him, her face anxious. She caught his arm, and panted:

"It's true, captain. Norlavich says the beasts are moving."

"Moving!"

"Yes. Not very much. Maybe an arm has raised an inch, or a leg—or an eye is a little bit further on in a blink. And I tried picking a flower and this time I could actually bend the stem."

MacDougall urged himself toward the lighted space of the airlock, breathing audibly. The girl walked briskly beside him, and he said glaring.

"I thought your orders were to stay away from the hypno, Keitha?"

She did not face him, stared straight ahead. "He didn't hurt me any," she said huskily. She dropped to the ground, stepping on grass that gave slowly, like a mass of wire.

MacDougall's fleshy hand wrapped around her arm. "What did the hypno tell you?"

She broke away, her face whitening to a sick color. "Nothing," she stammered. "Only that . . . that after all the hypnos are killed off they'll start on us Sensitives."

MacDougall started almost imperceptibly. Then he swore under his breath. He put anger in his eyes. "Understand what I told you now?" he demanded. "It's dangerous for you to be around a hypno. You Sensitives— Can't you see he's actually got you believing that?"

"Yes," she whispered.

"Now," he said darkly. "the Council will have to put you through another semester at the Clinic. But don't worry about it now."

They walked down the well-defined central path of the village, now and then forgetting to breathe through the nose-masks, using their mouths instead. The air, which at first had given them such trouble, went into their lungs slowly, with difficulty but not with as much difficulty as before. Still, it was necessary to breathe oxygen from their hip tanks. That oxygen, for some reason, was normal.

They walked past several of the queerly spiraling huts, and Keitha Drummond shivered slightly as she looked into the dark interior and saw a statuesque giantess sitting in quiet, godly poise. A few feet away from the hut, a giant who in all probability was her mate, stood with his shaggy head turned up toward a sky wrecked by dark cumulus heaps, unmoving. As if he were gauging the weather.

There were other huts. There were bones strewn around—bones which several of the crew had lifted and displaced only with effort. Over some of these bones, or crunching them lifelessly in their teeth, stood *outré*, fanged creatures with round bodies and extra legs, not in use, doubled up under their fur. A domestic animal. Other giants stood about. At the far end of the village, in the middle of which the spaceship had come to a forced landing, was a brutal-faced giant coming with one foot raised eternally in the air, a bloody spear in one hand, and over his shoulder slung a limp rag of flesh—an aboriginal being of short stature with a more human look on his face than the giant who had slain him.

Keitha and MacDougall stopped beside Norlavich, the thin nervous passenger whom they'd picked up on Mochus II. Norlavich held a tape measure, was standing under the bent arm of a rock-skinned, silent, motionless giant.

"You can see for yourself," said Norlavich, quickly putting his foot on one end of the tape measure and extending the other end to the unbulging giant hand. "In four

hours his hand has moved up an inch . . . whoa! Inch and a quarter. Hm-m-m! Moved a quarter of an inch in the last fifteen minutes. MacDougall," he laughed, licking nervously at his hair-line mustache, "this world is softening up."

Both Keitha and MacDougall showed questions in their eyes.

Norlavich explained, pulling his business suit coat tighter around his neck, in unconscious protest against the planet's chill: "It's this way, I'm sure. This planet pulsates—in the time dimension. It's on a return pulsation at the present, as near as I can gather."

"What would cause that?" asked MacDougall, somewhat aghast. He was trusting Norlavich, a complete stranger, who was paying a fee considerably above the current rate for passage from Mochus II to Earth, only because his navigator had been killed by the hypno. MacDougall was, unbeknownst to anybody else, pocketing the difference in fare.

Norlavich squinted along an upward slant toward the masses of pendant moveless clouds. He was a small man with quiet, olive eyes that were bright and quick and as full of humor as his generous mouth. He was a college professor—so he had told MacDougall—and MacDougall, truth to tell, did not care to dip into the statement with too many questions. He was well aware, and only a trifle uneasy, that the large passage fee was in the nature of a bribe. Norlavich said he had to get to Earth in a hurry, and MacDougall's warship had been the first vehicle to put in at Mochus II for several days.

"Too bad we can't see the sun," Norlavich said. "My guess is it's a big sun, quite outside normal experience. This planet is rolling around just outside Roche's Limit, maybe within a million miles of its parent. That means it's caught in a big gravitational warp. It's year can't amount to more than a few days. At perigee, the time-dimension shrivels down to nothing. Everything, even the pull of gravity, is pretty short. As it goes toward apogee, things get longer. Good enough?"

"Shorter? Longer?" MacDougall gazed at Norlavich with intensity. "Maybe I don't understand those terms."

Norlavich laughed, his eyes looking downward four inches to Keitha's. "I'm taller than Miss Drummond—spatially. But we're both the same weight temporally. Her minute is one of my minutes. If a minute were a box, we'd both fit into it snugly and neither

of us would take up more room than the other. But if I suddenly became as short in the time-dimension as this giant here, I'd be a thousand times shorter temporally than Miss Keitheia. Time can be considered a dimension, of course. Temporally speaking, we simply can't begin to get into the giant's box. We're too long. But as the time-dimension lengthens, as the planet travels toward apogee, the box grows bigger. And probably, according to my measurements, the box is growing bigger on the square.

"Of course," he added hastily, "don't take my word for it. There may be another, more precise explanation."

"And pretty soon," MacDougall suggested, "we'll be able to jump into their box?"

"Or," laughed Norlavich, "they into ours!"

Keitheia Drummond fitted her nose-piece more tightly to her flushed face. "What about my theory concerning the hypno?"

"Well," said Norlavich guardedly, "that's something else."

She extended a small white determined forefinger. "The hypno told me he created this planet," she got out, with difficulty.

Norlavich showed his surprise that she had spoken with the hypno, then quickly took all expression from his face.

MacDougall puffed his cheeks impatiently, looking at Norlavich as if to draw his support. But Norlavich said curtly "Might be! Except that I never heard of a hypno practicing mass hypnosis on a scale like this before. It would involve making us believe the shipwreck, our getting lost, the landing on this planet, our walking around on it, theorizing—"

"Not necessarily! He may merely have created this life here, under these conditions. What if these beasts came to life and attacked us and killed us?"

"You think an amaginary beast could do that?"

"Why not? We think they're here. Hypnos are capable of anything."

Norlavich's quiet eyes sparked, lidded. He regarded her patronizingly. "Young lady, perhaps you're too susceptible to the stories they tell about hypnos."

He bared his white teeth in a smile to offset the terrific sarcasm weighting his words. Both Keitheia and MacDougall wore shocked, incredulous expressions.

"That's not a smart thing to say," MacDougall glared. "Maybe you've lived on the outer fringe of the Galaxy too long to under-

stand how that statement sounds. Like a Pro-hypno."

Norlavich remained coldly silent. He was not willing to retract the statement, and a hard tension stretched between them. Then there was a short tooting whistle from the long slim blackened shape of the ship a hundred feet distant. By common consent, they turned toward the ship for the second meal of the day.

Several men shinnied down from the ship, hanging their welders over projections. MacDougall caught one of the men by the arm questioning him.

The man's welder's headpiece was thrown back from his face. "It's going better," he admitted. "The bead's beginning to take. I thought we might have to start using our own oxygen, but for some reason the planet's oxygen is . . . uh . . . softening up. We've got a 2700° flame, which is fair enough. Maybe we'll finish the job up in five or six hours."

As soon as Norlavich was settled into place at the head of the table with the girl Sensitive and MacDougall, he remarked, "That ties in. Oxygen's getting as long as our acetylene. Which means also the giant will start coming up to our size, too."

MacDougall reached for the salt. He nodded. "We better get a good check on just how fast their time is speeding up. Maybe we better get at that in the next hour or so."

Keitheia Drummond ate that meal in silence, and not much of it at that. She was a Sensitive, and she had been schooled through life to keep her thoughts and emotions to herself under strict control; her whole purpose in life was to sense the presence of hypnos, within radii that amounted to interstellar distances. But now there was a minute tremor running through her whole body.

Norlavich's all-encompassing glance noticed that. She had spoken to and seen her first hypno. He thought he had a general idea of what Joe Henderson had told her.

Norlavich finished his meal quickly, excused himself. He went to the washroom, turning his head birdlike from side to side. Except for the mess hall, the ship was deserted. He came from the washroom a few moments later, again looked around, then melted down the starboard companion-way, soundlessly.

On the third deck down he followed a corridor to its termination and came to the

hypno's cell, looking into its partial darkness.

"Joe Henderson," he whispered.

He strained his eyes. At the top crest of an inhalation, he caught his breath. No sound, no movement. There was nobody in the cell.

"Joe Henderson!" Norlavich called harshly.

Tiny hairs rose on his scalp. He stood perfectly motionless, staring at a fixed spot in the cell, not even breathing. And for a fractional instant, looking back at him, he saw a blurred figure, like the shadowy ghost of a man who was trying to materialize himself. That shadowy ghost was Joe Henderson. Then he disappeared completely.

Norlavich cursed. His thin fingers dived into his coat pocket, brought out a tiny, metallic instrument, dark-blue with strength and hardness. He inserted it into the lock, strained mightily, and something snapped. The door creaked a little, then sagged open of its own weight. Norlavich entered the cell.

He sweated. Then he started feeling around the cell, arms widespread, legs forked. In that manner he examined the volume of the cell, cubic inch by cubic inch. He felt a terrific, supernatural fright. He quickly left the cell, leaving the door ajar, and went up the stairs.

He had no sooner reached the main deck than he knew there was something amiss. From the direction of the main air lock he heard the crackle and hiss of several therma sticks. Several of the crew ran past him with an urgency on their faces. Norlavich got to the air lock in time to see three or four men dive into the air lock. He looked over their heads, up the breadth of the village and saw a strange sight.

The village had apparently come to life. There were perhaps thirty giants in the village, a few youngsters who were man-size, and fifteen or twenty of the round, many-legged domestic scavengers. These had all changed position and were facing the ship, even the scavengers. Half of the giants were moving with slow, ponderous walking-through-molasses stride toward the ship. The others were visibly getting into motion.

About twenty feet away was Captain MacDougall, running toward the air lock as fast as the wobbling extra pounds of his short body would allow.

Fifty feet behind him, taking it easy and looking over her shoulder, came Keitha

Drummond. She was unhurried, cool, doing no more than walking quickly. One of the giants was behind her a good hundred feet. The giant who had apparently just returned from a fruitful hunting trip was to her left and this one was now in the act of dropping the dead, humanlike beast draped on his shoulder.

Because everybody expected these giants to move slowly at best, the way the nearer giant got into action was terrifying. He moved forward one step slowly, another step that was twice as fast, and another step was twice as fast as that. At the same time, he drew his spear back over and above his shoulder and brought it forward. It snapped out, was in the air, and actually picked up speed as it moved.

MacDougall then reached the air lock, was helped aboard, strangling on his own breath.

"Close the air lock!" he screamed, after taking one look along his back trail.

At the same time, Norlavich let loose his breath in an astounded roar:

"Run, girl! For God's sake—run!"

The spear was driving straight toward her, squaring its velocity.

And the whole village partook of that same increased motion, a slow motion film which squared its speed for every passing second. The giant who had been a hundred feet behind the girl Sensitive had in a few seconds broken that distance to an eighth of itself. As if a sound track had been installed in the film, little thundering sounds sprinkled through the village, jumped up a note, two notes, at last held steady on a series of full-bodied giant roars. The round animals in the village were in full motion toward the ship, their whole bodies spiraling eerily, each ondriving leap using an alternate series of legs.

From their indeterminate mouths came a continuous sirenlike scream.

"Close the air lock!" MacDougall roared again but Norlavich yelled.

"No."

"She's only a Sensitive," MacDougall gritted, and as his men stood stupidly, he leaped toward the air lock controls.

Norlavich went after him, brought the back of his fist smashing against the side of MacDougall's head. MacDougall reeled back, and two of his men caught him. Norlavich flung himself from the air lock, ran toward Keitha. He didn't think he could save her. She was in the path of the spear,

and certainly she would receive a serious, if not fatal wound.

All this had taken scarcely more than a dozen heartbeats. Though she saw the spear's sure destination, Keitha Drummond was in the middle of a step, unable to divert the balance of her weight. The spear struck—almost.

Norlavich's teeth met in consternation. The tip of the spear made a wide, yawing motion, curving around the girl's head, lost motion, fell leadenly to the ground.

"Run!" Norlavich yelled. He caught her hand, jerked her hard. Norlavich heard the air lock whining shut, but he lifted the girl up, shoved her through the opening, saw behind him a giant hurling a boulder the size of a man's head. The boulder hit the air lock at quite normal speed, rebounded. Norlavich edged through into the ship, then, barely escaped being crushed. The door shut, and Norlavich, white with fury, whirled on MacDougall.

"You crazy fool!" he cried. "You tried to lock us out there!"

MacDougall was trembling with rage. He flung up a quivering hand. "Hold him, men. I'll teach him to hit me."

Two men grabbed Norlavich's arms, but Keitha Drummond edged her way through the press, her greenish eyes wide and unblinking with a desperate urgency. She faced MacDougall.

"Captain MacDougall, you said . . . you said I was nothing but a Sensitive. What did you mean by that? I have to know."

His faced turned brutal. "As a Sensitive, Miss Drummond, you're completely washed up."

"I have to know," she whimpered, suddenly twisting her hands. "If it's what I think it is . . . if what Joe Henderson says—"

MacDougall roared, throwing his arms over his head: "Do you think I have to stand here arguing with you with a village of giants out there ready to attack us?" His shrill voice suddenly demanded of everybody at large: "Did you see the way they suddenly speeded up?"

He stopped talking and nobody else said anything. They listened. The village was a babble of excitement and menacing roars.

They heard a giant body put its shoulder against the air lock with a vibration that traveled through the ship.

Some of the men crowded to the large closed ports on either side of the air lock.

From their exclamations, Norlavich, standing rigid and watchful, guessed that the village had geared itself to normal time.

But there was a flaw in this reasoning somewhere. What was normal time? It seemed to Norlavich, although the true answer was slowly gaining clarity in his mind, that the giants should have kept on speeding up. Why they should have come to an abrupt stop at the normal human rate of motion and living was a mystery.

Somebody yelled from the port, "They're bringing a battering ram from the edge of the village!"

MacDougall shouldered his way to a port, looked out, his fleshy jowls hanging. He clipped out, before stopping to think, "Gunners, man after and forward cannons!"

Somebody pointed out that the same dust storm which had sheared away some of their repeller plates had sandpapered the exterior cannon controls away too.

MacDougall paled and then yelled, "Don't stand there. You men with hand weapons get out through the sky-hatch onto the top of the ship and pepper them!"

Ten or fifteen men shifted uneasily and then left in a body. They had no sooner disappeared up the corridor than the giants outside let out a concerted series of cries. At the same moment, the air lock door shook violently, and a nut popped off its threaded bolt like a button.

Keitha Drummond stood with a sick, utterly devastated expression on her face, thinking of something that had little to do with the danger outside, Norlavich suspected. He felt a grim sorrow for her and her kind. She showed her first signs of awareness when one of the blue-shirted crew came on the double down the port corridor. His eyes were big.

"Captain MacDougall?" he said huskily. "Well what is it?" yelled MacDougall, turning from the port.

"The hypno, sir. Joe Henderson. Somebody broke the lock to his cell from outside. He's escaped."

Keitha uttered a low cry.

MacDougall turned on her, puffed face streaming sudden sweat. "You?" he choked. "You did that?"

But already most of the men standing around were looking not at Keitha but at Norlavich. Norlavich was the stranger, completely unknown to any of them. It was well known among the men that he had offered Captain MacDougall a fantastic sum for a passage to Earth—now it seemed in

the nature of a bribe, since the hypno was already aboard at that time.

MacDougall's quavering hand shot out. "Search his pockets," he harshly ordered the men who held Norlavich.

Norlavich made no protest, said nothing when the small implement with which he had broken the lock was held up for all to see.

MacDougall grabbed the implement and uttered a devastated curse.

"You know what this means, Norlavich?" he said harshly.

And Norlavich drew his slight body up proudly.

"*Captain Norlavich*," he said. "Of General Hanson Hale's Third Galactic Pro-Hypno Army."

MacDougall made an enraged sound in his throat, drew his therma stick and fired point-blank at Norlavich's stomach.

Joe Henderson, the hypno, was having trouble. He could hardly breathe. It was like inhaling molasses. When Norlavich showed up at his cell—a man Joe Henderson had never seen—he struggled up from a sitting position, spoke harshly. But Norlavich couldn't answer. He couldn't have heard. A thrill of fright pricked Joe's skin as he saw that the man was moving not like a deep-water man, but through something that was thicker than water. He remembered MacDougall's slowing motion as he had slogged up the passageway hours before.

Either he, Joe Henderson, was speeding up, or they were slowing down.

It was an hour before Norlavich, with his incredible slow-motion broke the lock on the cell. Joe Henderson, specks before his eyes, pushed the door open—by putting his whole strength against it. He thought the air might be better out in the corridor, but it wasn't. He staggered up the corridor, but the motion made such oxygen demands on his body that he had to rest at the head of the companionway.

His only thought was for air, better air. He took no thought of the men he passed who were moving as slowly, and perhaps slower than the man who had freed him. He dropped from the air lock, sank to a sitting position, trying to rest. Resting, his body didn't need as much oxygen.

He sat there near the spaceship, only vaguely aware of the events that were flowing around him. How long he rested he

didn't know. He knew only that the air wasn't much better. Finally he raised his eyes, and had his first good look.

He saw several men running soundlessly, snaillike toward the ship. Over a space of several minutes they hoisted themselves into the air lock. Behind them came MacDougall, and still farther back Keitha looking over her shoulder.

The giants of the village were moving but apparently much slower than the human beings.

Joe came to his feet, weaving, his eyes on the giant who had come back from a successful hunting trip. This giant held a spear. By the time Joe, moving with difficulty, got between Keitha and the giant, the spear was in the air.

Joe watched the spear for some five minutes. It was picking up speed, undoubtedly—probably on the principle of the square. As it came over Joe's head, he bunched his legs, leaped toward it, but fell short. He tried that several times. However, the spear was arcing down, and when its deadly barbed point was a few feet from certain collision with the girl Sensitive, he was able to wrap his giant hands around it.

He was breathing hard now, and it seemed as if his strength was slipping away. He gritted his teeth, grunted. The spear, hurling forward inch by inch, was simply dragging him along with it. Yet he pulled mightily, brought the spear tip around in a slow circle, his corded muscles standing out, sweating.

He saw Norlavich drop from the air lock.

He loosed his hold on the spear, dropped weakly to the ground. The spear, deprived of inertia, sank slowly downward.

Later, Joe Henderson rolled weakly out of the way of giant feet, crawled to the side of the spaceship. He watched the soundless giants bringing the battering ram, saw it strike the air lock once, twice. The third time a warp big enough to admit Joe's body was made.

As he levered himself up to the air lock, he noted men on top of the ship, slow-motion men, shooting at the monsters without much success. He saw two of the men plucked off and squashed hideously. Their mouths opened in screams, but they were sounds that belonged to another time-scale, so far below the limit of audition that they could not affect Joe's ears.

He wormed his way into the ship, through torpid, snakelike moving men, brushed past

Keitha Drummond's rigid body, and saw Captain MacDougall, nostrils dilated with anger that was completely uninhibited, holding a therma stick and pointing it at Norlavich.

MacDougall's finger was plainly contracting on the trigger. Joe was feeling an oxygen-starvation again, and he knew he'd have to sit down for awhile. His eyes fixed longingly on the oxygen tanks everybody was carrying. However, few of the people had their nose-pieces attached to their faces, and it was apparent they were breathing the planet's air. He didn't have any time for that, now, though.

One thing was apparent to Joe Henderson. The time of the human beings and the time of the giants was now identical. His own was inconceivably faster at present, so fast nobody could see him. But previously, there had been three different times: that of the human beings, that of the giants, and his own.

Sooner or later, Joe Henderson's time would level down to theirs; or level up. Which? Why Joe Henderson should keep a time that changed in relation to theirs was at first a mystery. Then he thought it out. The anti-hypno barrier. Nothing else could have kept him immune to the temporal-variation vibrations which washed this planet. His time had remained a constant while he was in the cell. When Norlavich had released change, just as they had been subject to it him, he had become subject to the time—from the first.

If he was slowing down, and that seemed likely, he had a tremendous job ahead of him, and it would have to be done in a hurry.

He now walked over to Captain MacDougall. He wrapped his great hand around the barrel of the therma stick, pulled upward. The gun was barely budging. It had a will, an inertia of its own, in another time. He sweated and he was weak anyway. Yet the gun did budge up, perhaps a quarter of an inch, and Joe relaxed dizzily as he saw a killing flash of light spear daggerlike over Norlavich's shoulder.

Joe took one of the oxygen tanks from one of the crew, but beyond the fact that it was pure oxygen, it was no better than the air he was laboriously breathing. He dropped it and turned facing MacDougall, thinking soundlessly, "Captain, you and your men are done for, unless you can beat the giants off. I can only help what's me or mine. And maybe I don't care if you die—

you and your kind who hate to see the human race take one more step up along the path of evolution. But you'll never kill us all. You birds are the Ordinaries, only you don't want to be Ordinaries. When we're all dead, you think, *you'll be the supermen.*"

Then he turned toward Keitha Drummond.

Norlavich had little time to consider the cause of, or feel relief for, his salvation. Suddenly he was in the air, was moving at brain-jarring speed straight through the warp in the air lock. Then, as if someone were throwing him, catching him, throwing him again, he shot dizzily toward the low hills bordering the village. Then he was on his feet, reeling, staggering and he fell to a sitting position, and was looking stupidly up at Joe Henderson's exhausted, streaming face.

There were hills around, dark and windy, and he was sitting on soft damp grass. Neither the village nor the ship was in sight. The transmigration had taken perhaps a minute.

Keitha Drummond was sitting near him. Her mouth opened and she emitted a soul-withering scream.

"Sit still!"

Joe Henderson rapped the words out, the savagery of his voice focusing their attention on him, rather than on puzzles which might have disastrous mental consequences.

They sat still. They sat quietly. But whereas Norlavich showed a gradual, humorous relief, fright began to distort the girl Sensitive's face.

Joe said, squatting down, "That was a drag! I could shove you along for awhile. Matter of inertia. But my time kept slowing down and you started squirming. We got this far. We'll have to make it farther back into the hills."

He spoke further, casually, obviously trying to impress subtly upon the girl the complete usualness of what had happened. "Too bad about MacDougall and the others. I think they're done for. Can't be helped. Keitha, give me a cigarette."

She handed him her half-empty pack after a long minute. She said huskily, "You wanted MacDougall and the others to die!"

"Did I?"

"Yes! You could have hypnotized that whole bunch of giants. For you it would have been nothing!"

Joe looked at Norlavich, and Norlavich

shrugged helplessly. Joe said, very patiently, very slowly. "Keitha, you'll have to be re-educated maybe. You've heard too many lies about the hypnos. You've believed them. You'll have to start unbelieving them. In the first place, it's too exhausting to use my double-brain unless I have to. In the second place, I have a strange moral qualm against using my hypnotic powers. In the third place, I doubt if I could control more than two or three human beings at a time, hypnotically. Fourth, I have no power over animals or other intelligent beings who are not human. Good enough?"

Her teeth were chattering. "No! What are you going to do to me?"

"Do to you?" Joe laughed, blew out smoke. "Do exactly the same as I would with any pretty girl. Talk with you, joke with you, maybe try to make love to you."

"You're lying!" she cried harshly. "You'll torture me. Hypnotize me—do something horrible. You're a hypno aren't you?"

"So are you," said Joe Henderson calmly.

She leapt to her feet, and the first normal wind she had felt on this planet whipped her hair distractedly around her face. She screamed tinnily, "Don't say that!"

"Might as well admit it, Keitha. You're a hybrid hypno. All the Sensitives are hybrids. The powers-that-be know that. That's the reason they segregate you and your kind. They train you to hunt us down—you're sensitive to us, and we're sensitive to you. But they don't ever let a hypno see you face to face. The hypno might tell you the truth. Well, now you know the truth. Ask Norlavich. He's an Ordinary—pro-hypno; but he knows what you don't."

She looked wildly at Norlavich and Norlavich nodded in complete agreement. Her head dropped, she locked her arms around her stomach as if feeling a terrific coldness there, and fell moveless to the ground.

Several minutes later, the men had her wrapped in their shirts and coats, and Norlavich said, "She'll be all right."

He gripped Joe Henderson's hand, and the

two men smiled. Norlavich introduced himself as a captain in the Special Intelligence of General Hanson Hale's Third Galactic Pro-Hypno Army. "Should be some of the ships of the Galactic Third in this neck of the woods, Joe. Hale won the last engagement. Maybe if this girl throws in her lot with us, your combined minds can make a dent in the ether and get a message through."

"And we might draw a Galaxy Guard ship."

"That's a chance we have to take, I'd say. Of course, the Galactic Third has cleared out most of the Guard from this neighborhood. Even at that, you and I, fighting for a cause we know is right—well, Joe, you and I have been taking chances all our life."

They sat there, shivering and smoking.

"And when they do get here, we'll be statues relative to them," Joe said at last. "That's all to the good though. Means we won't be marooned here more than four or five hours, maybe. Maybe."

Norlavich nodded carelessly. After awhile, he mused. "Funny how egocentric people can be. We all thought our time was 'normal', whereas it was the planet's time-scale we were slowing down to. On the inverse square. The longer we stayed, the more quickly we adapted. And you kept moving at Earth-normal. The anti-hypno barrier? Hm-m-m. Preserved Earth-normal time, I'd say. No wonder I couldn't see you when I broke the cell lock."

The girl stirred moaning as if in a mental torture chamber. Joe moved concernedly closer as her eyes opened. She met his dark eyes for a long searching moment. Then she dropped her head back, sighing.

"What fools some people can be," she muttered. "I'm not afraid of you any more, Joe."

"I'm glad of that," Joe Henderson said softly. "We can't tell how long we'll be here. In the meantime, we'll have to find ourselves a cave, and get ourselves set up on a paying basis. There're giants to lick, Keitha and I don't mean only the ones on this planet."



THE PLANTS

By MURRAY LEINSTER

It should be axiomatic that the dominant life-form on any planet is a dangerous, powerful species—or it wouldn't be dominant. But of course, no one will be much bothered by a pretty little flower, even if it is dominant—

THE plants on Aiolo grew by thousands and millions and hundreds of millions over the wide flat plains of the planet. It was not a very luring planet, perhaps, but the plants knew no other and they were content. They were all alike. Every one was a flower with a singularly complicated center and a wide collar of white petals. It grew four feet high upon a reedy, seemingly flimsy stalk. Up at the top, just under the blossom, there was a furry thickening of the stalk for about six inches. This thick part was asymmetric, with lumps here and there as if the organism within it were far from simple. It was. The plants spent most of the daylight hours gazing at Aiolo's tiny, blue-white sun. Now and then, though, they turned from it to regard each other or any singular occurrence that might take place. But there were not often any occurrences because there was nothing on Aiolo but the plants. Literally nothing. No animals. No birds. No insects. And the plants were all alike. They were not only the dominant species on Aiolo, they were its flora and fauna and everything else.

But one day there came a screaming, far away in Aiolo's thin air, and out of the purplish sky a dark object came hurtling horribly. For a time it traveled almost parallel to the ground, but gradually it descended, struck and bounced upward like a skipped stone, struck and bounced again, and then struck a third time and ploughed a monstrous furrow in the soft earth for a quarter of a mile before it stopped. It killed thousands of the plants of Aiolo in its plunging.

After it was still for a long time, four men came staggering out of gaping rents in its plating and gazed dazedly about them. And all the plants within view turned their faces to regard them curiously.

Hours after their landing, the four men built a campfire in the great furrow dug by the *Copernicus*' shattered hull. They brought out shattered burnable litter from

the ship's interior to use for fuel, because, of course, the plants would not burn. As they cooked, the sun sank abruptly and the formerly faintly-visible stars came out with astonishing brilliance. The only light anywhere on the ground was that of the campfire. The flames licked high and burned with more than ordinary brightness. The atmosphere of Aiolo was only five percent nitrogen, and despite its thinness men could breathe without air tanks, and fire could burn.

The men moved about the fire with stiff and painful motions as if badly bruised and shaken. Around them the round flower faces turned toward the flames or the men or both. They made an effect of innumerable marveling listeners. The men had found their stalks too tough to be readily brushed aside, and they camped in the cleared furrow for convenience.

"After thinkin' it over," said one of the men ironically, "an' even allowin' for the fact that we're still alive, I still say we're in a fix! Slade musta been crazy!"

A second man—Caxton—said meditatively:

"No-o-o, Burton. He planned it too carefully. Some of his explosives must have been set before we left port. And he pushed off in the lifeboat before they went off. They were exactly calculated to wreck the *Copernicus* from stem to stern. He had some scheme in mind, but just what—"

"It was just murder!" said Burton stubbornly. "He was a killin' lunatic. There were forty-eight men in the ship, countin' him. Forty-three of 'em died right off. We shoulda died, too. He just meant to kill everybody. What'd he gain by wreckin' the old ship fifty light-years from anywhere?"

A third man, Palmer, said heavily:

"There's twelve million stellars worth of iridium on board. If he figured he could get away with that somehow— He might figure

on coming back to loot it. He'd have the *Copernicus* course and speed."

"Yeah?" said Burton scornfully. "How'd he reach any place to come back from? All he had was a lifeboat! An' what'd the ship's course an' speed be by the time he did get back?"

Caxton nodded.

"I agree on that, Burton. If you don't find a wreck pretty quick you don't find it. But still I think Slade had some scheme in mind. He wasn't just a maniac killing people. A maniac likes to see people die, and he left hours ahead of time."

They ate as they talked, but the food was not really cooked. The boiling point of water in the thin air of Aiolo was well below two hundred and twelve Fahrenheit. The food was hardly more than well-warmed, save where it was burnt. The coffee could be drunk straight from the boiling pot without scorching one's tongue.

Presently they fell silent gazing into the fire. Their situation was completely without hope of betterment. The hull and drive of the *Copernicus* was shattered far past patching. The ship's fuel was gone to the last ounce. The wrecking of the ship in midspace had been a triumph of ingenuity and skill. At one instant the freighter had been droning along comfortably at cruising speed on overdrive, taking a direct line between Algol IV and the Briarades. And then, without warning, there was one shattering explosion, then two more, and then a monstrous blast which seemed like the end of all things. Within seconds the *Copernicus* changed from a well-found, space-worthy vessel to a riddled, airless, powerless hunk, its overdrive off, and therefore next to no forward velocity.

The four men beside the campfire on Aiolo were the only survivors beside the man who had set off the blasts by machinery. They had happened to be off watch in the only two compartments of the ship which were neither cracked open by the explosions nor emptied of air by the jamming of self-sealing doors. Their situation had seemed hopeless then.

Even now it was hardly better, though something like a miracle was responsible for their being still alive. No possible astro-gator could have calculated a landing such as they had made, nor could any wreck have grounded approximately in one piece on any planet less featureless than Aiolo. The derelict had hit the atmosphere traveling west to east at the flattest of conceivable

angles. Moreover, it had overtaken the planet in its orbit so that both orbital speed and the speed of rotation could be subtracted from the relative motion of bulk and planet. It had hit within an impossibly small margin of the incredible, at a rate which would allow the atmosphere to slow it without burning it up, and at an angle which allowed it to reach ground like a skipping stone. It bounced twice, ploughed a huge ditch in soft earth, and came to rest.

But the four men who still survived the shaking-up were in no enviable position, at that. They were marooned on Aiolo, which had been visited by men exactly once before in all galactic history. They had no hope whatever of ever leaving it. And their situation was the work of a shipmate who had caused it and then set out, seemingly, to travel fifty light-years in a lifeboat powered for seven.

The night grew chill, even beside the fire. It would be horribly cold presently. Horribly! But in the bright starlight the plants stayed erect and the flowers open, their round faces staring at the fire and the men.

"We might as well turn in," said Caxton presently. "We'll think of something we can do, sooner or later."

The statement was a lie. There was nothing to think of but endless chilly days and endless frigid nights to come, on a planet on which every square mile seemed to be exactly like every other square mile. They would live here, and grow old, and die. Perhaps in a thousand or a million years another cosmographic expedition would land on Aiolo and find the rusted wreckage of their ship. But that was all they could look forward to.

They had sleeping bags ready. They crawled into them and zipped the flats shut. The fire died down and died down—

Starlight shone on the broken hulk, and on the four sleeping bags, and on the plants. The flowers stirred subtly. They made tiny, quite imperceptible sounds. Presently those nearest the gouged-out furrow leaned toward the sleeping men. They drooped far over. They drooped in tiny jerkings; not at all like the smooth movement of muscle, but they moved. Three of the four men were far beyond their reach, though the nearest flowers strained toward them, but Caxton had happened to sleep with his head quite near to undisturbed ground. Hannet was fairly close to some flower stalks, and one leaned far over and out to approach him,

but it could not. Half a dozen or more, however, could hover over Caxton. Their blooms bent down and bent down until they almost touched the cloth of the sleeping bag above his head.

Beyond that, nothing happened at all. When dawn broke and the men waked, the flowers were all erect again.

But, next morning, as the castaways prepared their necessarily half-cooked breakfast, Caxton said suddenly:

"Look here! Slade left the *Copernicus* with fuel for at most seven light-years. It's fifty to the nearest inhabited solar system. We thought he was crazy! But—where are we?"

"Right here," said Palmer gloomily. "And likely to stay, too!"

"Well, then—where'd Slade be if he had sense?"

"If he had sense," snapped Burton, "he wouldn't ha' wrecked the ship. But if he wanted to stay alive—"

Then Burton stopped short, his mouth open. Palmer swore suddenly. Hannel growled.

"He'd be here, too," said Burton angrily. "He'd have made for this place and landed! He's somewhere on this planet!"

Caxton nodded. His expression was queer.

"It came to me in my sleep," he said slowly. "I had odd dreams, all mixed up with these flowers. Somehow I had a feeling in my sleep that they were telling me Slade is here. But it makes sense."

He looked uneasily at the flowers, all of which seemed to regard the man and the hulk of the spaceship with a round-eyed curiosity. It was particularly odd that all of them faced the men, because some were on the north and some on the south and east and west. The ground went on to the horizon, completely flat and completely monotonous. As far as the eye could reach, there was nothing in view but these flowers. They were all the same variety. There was no grass underfoot. They were spaced without regularity, but with an amazing equality of space between them.

"Flowers told you? Huh!" snapped Burton. "But that's it, all right. He smashed up the ship and landed here and—"

Again his mouth dropped open.

"But he couldn't ha' figured the ship 'ud land here," he protested. "Nobody coulda calculated the landing we made!"

"Hardly," said Caxton. "No matter how fine his adjustments were, he couldn't time

his explosions to make us crack up on Aiolo. He could know, though, that he'd make it in the liftboat."

"But who'd want to make it here—"

Caxton looked at the flowers speculatively.

"Maybe he had friends waiting." He paused. "There's that twelve million stellars' worth of iridium in the ship, yonder."

The four men looked at one another. One of them got to his feet and swore at the aches and pains which beset him. He went into the ship while Caxton went on evenly:

"Nobody can pirate a ship in space, on overdrive. You can't find it! And nobody can be kept from going on overdrive if he's scared or suspicious. So there's never been real piracy in space. But Slade smashed the *Copernicus* close to this planet and this sun. He made the ship a hopeless wreck, and went on to join his friends. They'll have a ship, and they'll wait with detector screens out for a derelict to float past—"

Then he got up and dived into the interior of the ship. He entered through a great rent in her plating. There was one huge tear where thirty feet of her inwards were exposed to view. There were sudden, violent crashings inside the hulk.

Caxton came out again, very pale. The other man who'd been inside came out with three or four quite useless objects in his hands.

"There was a Bridewell automatic sender in action," said Caxton briefly. "That would have helped them find her! I smashed it, but probably too late."

Palmer said bitterly:

"I went lookin' for somethin' to fight with. All I could find was torches." He threw them disgustedly away. "Weldin' torches against guns!"

Hannel growled:

"We net't have to hang around to be killed, of course. They wouldn't bother to track us—but they'll know somebody lived through the crash. They'll prob'ly bake the ship just to make sure—"

The four men clenched their hands. It was bad enough to be hopelessly marooned upon a planet inhabited only by flowers with an irritating habit of always staring at one. But it was infuriating to feel sure of the near presence of a ship on which they could return to humanity, save for the slight fact that the crew of that ship would murder them on sight to prevent it. It was most enraging of all to be unarmed.

"The most we can do," said Caxton, "is

to hide the iridium. It won't do much good, but at least it'll bother them."

Burton stared around the featureless plain.

"Where you goin' to hide it?" he demanded sourly. "They could track us anywhere. Turn up any dirt an' it'd show from overhead."

"We might bury it in the furrow or under the *Copernicus*," said Caxton. "They'd expect us to cart it away. So we won't."

There was a sudden wavering motion of the plants about them. The flower faces turned, in small, jerky movements. They faced to the southeast. All of them. As far as the eye could see, every flower over miles and miles of plain turned and faced in the one direction—which was not the direction of the little blue-white sun.

Then, very faintly at first, there came a roaring noise far away. It was accurately in the direction toward which all the flowers turned. It moved swiftly along the horizon, and all the flowers turned their blossoms in tiny jerks as it moved. When the roaring noise died out again to nothingness, all the flowers over all the plain were facing to the northeast.

"That's them!" said Palmer furiously. "Let's get that stuff hidden! Not that we want it, but so they won't get it!"

But Caxton was staring at the flowers. As he looked, with many tiny jerks the blooms which faced away from him turned about again. And again the wrecked *Copernicus* and the four men were surrounded by staring flower faces, which watched them with an air of charmed attention.

The men set savagely to work to hide the treasure, for which the *Copernicus* had been wrecked, forty-three men murdered, and they themselves hopelessly marooned upon Aiolo.

Toward sundown, Caxton had an idea. He rummaged in shattered cabins until he came upon a tiny picturescope. Men who travel far afield in space have usually some personal pictures they like to look at from time to time. Picturescopes run off such records untiringly, without power supply. Caxton found one with a seemingly full record. He tucked it under his arm and walked off among the plants. It was amazing, once he was among them to notice that though there was no pattern in their growth—they did not grow in rows or any recognizable arrangement—there was a strict and startling equality in the amount of moist bare earth about their stalks. Each one had as much clear space as would roughly fill a two-foot

square. They were not overcrowded. Each had an equal allotment of ground from which to draw its nourishment. And they had no competition. He bent down and fingered the soil. Its top was a closely-matted tissue of roots. There could be no erosion nor could there be any dust-cloud arising from wind blowing over such terrain.

He walked away from the *Copernicus*. Flower faces turned to regard him as he moved. He walked between the stalks, and every flower stared at him. There was a concerted movement to regard him. At a hundred yards from the ship, he could see that he was surrounded by staring blossoms. Even those in his rear had turned from the ship to stare after him.

Two hundred yards away, he set up the picturescope and touched its button. It began to function. There were two children waving out of it—evidently the children of the murdered man to whom the picturescope had belonged. The scene changed, and a woman smiled and spoke. That went on for a space, and there was the interior of a living room, with the woman and the children moving about—

Caxton cast sidewise glances at the flowers about him. A few had turned from their fascinated contemplation of himself to look at the picturescope. Others turned twitchily as he watched. A blossom drooped jerkily to approach the screen. Others drooped to join it. They crowded to contemplate it. They almost jostled each other.

Caxton went back toward the wrecked ship. Three times he stopped to survey the scene behind him. The plants paid no attention to his retreat. Every one within hundreds of yards of the picturescope turned and faced it. Within ten yards, they drooped and seemed to strain toward it. Caxton reached the great furrow, his expression very queer indeed.

"These flowers are conscious!" he said abruptly, to the others. "They've got intelligence of a sort. Look at them looking at that picturescope!"

Burton said sourly:

"What good's that?"

There was a simultaneous movement of all the blossoms within sight. They stirred and by tiny twitching movements faced to the northwest. Unanimously. The men held their breaths. Presently the thin air brought them a faint, faint sound which was the deep-throated roar of a space drive in atmosphere. But it was very faint, and after only seconds it died away.

"They heard that before we did," said Caxton calmly, "or else they knew it—another way."

Then he looked where he'd left the picturescope. The flowers about it had straightened up and turned to face the inaudible sound. But as he watched, those about the busily working small machine turned again, and those nearest it drooped toward it until there was a small depression, about the picturescope, in the otherwise perfectly level field of flower heads.

The small white sun was very low upon the horizon. It dropped down and was not. Night fell. Hannet built up the fire with more litter from inside the *Copernicus*. Palmer began to cook.

"Slade's pals know the ship crashed, now," said Burton, seething. "They had trouble believin' it at first, maybe. Odds too big against it. But they know it now! And now they're huntin' it, cussin' because the Bride-well's stopped sendin'. They'll find us, though! They're quarterin'—"

Hannet said bitterly:

"And we haven't got a thing to fight with when they do catch up on us!"

Palmer snapped:

"You think we don't know that? Even if we go off an' hide, they'll know somebody was alive around here! So they'll bake the ship just to spoil our grub, an' there's nothin' to eat on the whole planet except what's in the ship."

Caxton said meditatively:

"I think we've got to ask for some help."

The others blinked at him. He waved his hand around, at the white-fringed flower faces now again regarding the fire and the men with an effect of captivated interest.

"These things are intelligent after a fashion. I don't know how intelligent, but—"

"Huh!" snapped Burton. "You're goin' to get a pack o' flowers to help fight off a gang of murderers?"

"I don't know," said Caxton. "But it's the only chance we've got."

Hannet grunted. Palmer said belligerently:

"What could flowers do—even if they had brains?"

He poured out barely-warm coffee and Caxton said:

"I don't know what they can do. But I can guess what they've done."

Men grunted skeptically.

"They've wiped out every other life-form on the planet," Caxton pointed out. "They haven't bothered us, to be sure, but we

haven't bothered them. In landing, we killed a good many, but it was an accident. We couldn't help it. Maybe they know it. Anyhow they wiped out all competitors before us. There's no other sort of plant and there are no animals and not even an insect. You can't tell me there was never but the one line of evolution! These plants are highly organized. They're specialized! If they'd had no competition, they'd have stayed primitive. But they've developed to what they are because they did have competition which they've now wiped out! They've even arranged to divide up what's left among themselves. Every one has the same amount of space—no more, no less. They're the dominant race on this planet. They have senses—hearing, at least, and certainly sight, and I insist that I had those queer dreams of having the flowers tell me that Slade was here—and he is."

Burton snorted scornfully. The feeling of utter helplessness and hopelessness made all their tempers short. They would be found tomorrow by the ship they'd heard, which was hunting for the *Copernicus* to loot it of twelve million stellars' worth of iridium. Forty-three men had already died for that iridium. Four more would die tomorrow because, whether the pirate ship killed them in cold blood, or merely turned a heat ray on the wreck and turned all their food to charcoal, they would die. Almost any argument would be maintained to avoid thinking of their infuriating helplessness.

"How'd those flowers fight animals, if there was any?" demanded Burton.

"How did men fight them?" asked Caxton. "Was there ever any single way? Men used their brains. Man specialized on intelligence, and became dominant on Earth. These plants may have done the same thing. At least they're dominant here!"

"O.K.," said Burton in heavy sarcasm. "Talk to 'em, then. Tell 'em we'll bring 'em a load of fertilizer if they'll wipe out Slade an' his gang so we can go home in his ship!"

"That," said Caxton meditatively, "is just about what I've got to try."

"Crazy!" rasped Burton.

"Quite likely," admitted Caxton, "but I can't think of anything with sense to it that gives us a chance."

The stars on Aiolo were very bright. The air was very thin and very cold. The men in their sleeping bags lay still, and the camp-fire burned brightly until there were only embers left, and those embers glowed with

the brightness of coals in almost pure oxygen. One by one they went out, leaving only ash. But all the men were not in the gouged-out earthen furrow behind the shattered *Copernicus*. One man lay among the flowers, twenty yards and more from the ship.

It was easy to locate him, even in the starlight, though he could not be seen among the flowers. For many feet around him, every flower stalk was bent toward him. His sleeping bag was almost hidden by hovering blossoms—most of which were clustered as close as possible to his head.

The ground was utterly flat, and it reached out to a horizon utterly without break or projection. It was a monstrous plain, completely filled with the omnipresent flowers. Nearby one could see between white-petaled blooms to reedy stalks and stringy leaves below. But at a distance the absolutely level sea of blossoms formed a sheet of snowy white.

At what would correspond to ten o'clock in the morning, the look of the vast expanse of flowers changed. From one horizon to the other, the plants stirred. They moved in tiny jerks. They faced in one direction.

"This will be it," said Caxton evenly. "They'll find us now."

There was yet no sign of the pirate ship, neither of sight nor of sound. Three of the four men clenched their fists, raging. They might be killed. They might be mocked and left to die. They were filled with an impotent rage at their inability even to offer battle.

Caxton waited with an odd expression on his face. A dull roaring came from very far away. It grew louder. It grew thunderous. They saw the spaceship as a tiny speck of light; a moving mote of brightness which was the reflection of the sun from its chromium-bright outer plating. They regarded it in suffocating fury. It went hurtling onward—and suddenly shifted its course. Its momentum carried it on, but it swung toward the crashed *Copernicus*. It turned again. It made a wide half-circle and headed back toward the wreck and the great furrow in the earth, descending as it came. It was a small ship, much less than the freighter it had come to loot. Concealed ports opened in its bow and guns peered out.

Caxton ran back in the furrow and waved violently, trying to cause it to land where there were no plants. It ignored him. One of the bow guns flashed briefly. An acre of flowers exploded in steam, and only black-

ened stalks and seared earth remained behind. There was a strange, tiny, extraordinarily shrill sound which ran all over the plain of blossoms, as if the flowers themselves had uttered it in rage or horror. All the way to the horizon there was the seeming of commotion, of the agitated twitchings of reedy stalks.

The strange space vessel landed. It had the swollen, obese look of a space tug. It settled heavily upon the newly-charred ground. It was still. Then the gun muzzle swiveled. Another brief flare. Another burst of steam and thin shrill screaming noise. A path of charred emptiness opened from the space tug to the battered, broken wreck. Figures in spacesuits appeared carrying weapons. They walked negligently toward the *Copernicus*.

Caxton went to meet them. The first face he saw in a space helmet was strange to him. The second was Slade's.

"Hello, Slade," said Caxton coldly. "We figured you were responsible."

Slade grinned.

"Neat job, eh? How'd it miss you?"

"Cabin," said Caxton evenly. "Off duty. The self-sealing door worked."

"Any others?" asked Slade negligently. He raised a weapon very casually.

"Three," said Caxton. He added, "We hid the iridium."

Slade lowered the weapon.

"Yeah? What for?"

"To make a bargain," Caxton told him. "We want transportation to some place where we'll have a chance of being picked up. Promise that and we tell you where the iridium is. Otherwise—look for it!"

Slade laughed.

"We can get it outa you with a pencil beam," he said amusedly. "One thing I do wanna know, though. The flowers don't bother you. Why?"

"Why should they?"

"Maybe this's a different kind," said Slade. "Where we were waitin' for the *Copernicus* to come along, they made some kinda smell or somethin' that put a guy to sleep. That's why we got on spacesuits now. O.K.—Where're the other three?"

Silently, Burton and Palmer and Hannel came into view, their eyes sullenly defiant. Slade grinned at them.

"We came for the iridium," he said in mocking politeness. "I wanna volunteer to tell me where it is, or else the first one to

take the pencil beam test. Who's gonna be nice?"

"I'll show you," said Caxton, without intonation. "It was silly to hide it, anyhow."

He led the way. He pointed to where they had dug deep under the *Copernicus*' plating to bury the precious metal for which their shipmates had died.

"Fine!" said Slade. "You men buried it. Now dig it out!"

Silently, the four men took shovels and began to dig. Slade stood over them with a blaster held negligently in his hand. Those with him explored the ship cautiously. They found no one else in hiding. They began to loot. One man carried a load of personal possessions back to the pirate ship, moving along the lane of charred, destroyed plants. Two men came back with him. More loads of loot. A shattered box of Bynarth lace had spilled half its contents in a broken-open hold. More men came from the pirate ship. The last three came without spacesuits, having been informed that since the four survivors of the wreck had had no trouble, there was no need of spacesuits here.

Caxton and his fellows unearthed the iridium. Twelve million stellars' worth. They dragged it out to the clear space of the furrow.

"Maybe I oughta make you carry it to my ship," said Slade, genially, "but a little exercise'll do my gang good. So—"

He lifted his hand weapon, grinning. It bore upon Caxton. His finger tensed on the trigger.

And that was all. He ceased to move. His eyes closed. He stood rocking on his feet, breathing heavily.

There was silence. Inside and outside the wreck there was stillness. Caxton turned his head and saw two men from the pirate ship, on their way back to it with loot taken from the *Copernicus*. They stood still swaying a little on their feet. There was no movement anywhere.

"All right," said Caxton coldly. "We'll load up the iridium. That'll be salvage, anyhow. Maybe we'll come back for the rest. Maybe not."

The four men began the transfer. When the last of the iridium was loaded, Caxton went back and took away the weapons from the seemingly paralyzed pirates.

Burton said furiously:

"Ain't you goin' to blast 'em off?"

"I promised not to," said Caxton grimly. "Besides, we couldn't. Slade had his finger

tensed to kill me and he was stopped. We'd be, too."

Burton grumbled. Then he said defiantly: "Whadda we do now, then?"

"Take-off," said Caxton.

He went into the ship. Its entire company was outside. There were only the four survivors of the *Copernicus*.

The strange ship rose vertically from the ground. Caxton, in the control room, looked at the bottom visiplate. The wrecked spaceship below already grew small upon the screen, but the two blasted areas—in which thousands upon thousands of the plants of Aiolo had died—were still visible. And he saw moving dots. The men who had come to Aiolo in this ship, but now were left behind, marched somnambulistically toward the larger burned-out space in which the pirate ship had landed. But that space dwindled still more as the ship rose, until nothing could be seen at all except the illimitable expanse covered by the flowers—the plants of Aiolo.

"They're the dominant race of Aiolo," said Caxton doggedly. "It's as I told you. Like men, they specialized on intelligence. Men specialized on intelligence to tell them what to do. But those things were plants. They could only specialize on intelligence to tell other things what to do. To tell animals to keep away from them, for instance. They are tiny enough, and maybe the will power of a single one isn't enough to—well—hypnotize anything or anybody. But when a whole field of them concentrates on telling something or somebody what they must do—why there's not much chance of disobeying them. Animals, in the past, were useful to them. They made the animals devour other plants—made animals clear ground for them to spread to. But when they'd spread everywhere, they had no use for the animals. So—"

"Huh!" said Burton, "They didn't bother us!"

"We didn't bother them," said Caxton dryly. "And the intelligence that can force itself on other minds hasn't much trouble extracting information from them. They knew everything we thought."

"But—"

"Surely they could have killed us," said Caxton irritably. "It annoys me to think how completely we were at their mercy! But they knew—from our brains—that our arrival was an accident. They knew we were the victims of others of our own kind. And

somewhere on the other side of Aiolo, Slade and his gang had made trouble for the plants. He said something about the plants giving off a smell or something that put men to sleep. That was his interpretation. Actually, he and his gang had burned off a ten-acre space simply to have room to move around in. He killed millions of the plants. They fought back the only way they could. But apparently a four-inch steel hull is a barrier to—whatever force a mind or minds can exert on others. They couldn't affect anybody inside the ship, and the more they worked on men outside the ship, the bigger the swathe of plants was burned down by the men inside the ship, to 'clear the air.' Naturally, the plants wanted to get rid of those men and of their ship, too."

"How d'you know all this?" demanded Hanner skeptically.

"The plants told me," said Caxton evenly. "Our minds are made to communicate and command things. They could read our minds, but they couldn't communicate ideas—only commands—unless we were asleep, and even then only with difficulty. So I had to go out and sleep among them to be able to tell me. We made what you might call a bargain—while I was asleep."

"Meanin'," said Burton, "you dreamed it! Huh!"

"Who's dreaming now," asked Caxton, "that we're on this ship headed for the

Briariades, fifty light-years off, instead of waiting to die on Aiolo?"

There was no answer to that.

There was a blackened, empty space where a ship-mounted blaster had played, and there was a deep furrow where the *Copernicus* had ploughed horribly through soft earth as it stopped. But the blackened space was smaller than it had been. There were new small plants growing up, and tall, full-grown plants leaned strainingly far out beyond them to touch the ground at appropriate spots for yet other new plants to start. It would not be long before the naked furrow and the charred spaces would again be filled with growing plants. There was, to be sure, a curious mound at one place in that clearing—it had been men—and the wreck of the *Copernicus* would stand up above the flowers for long centuries to come. But the situation was well in hand. On the other side of the globe, too, a process of repair was in progress.

So that, with a return to normal quite definitely on the way, the flowers could spend most of their daylight hours gazing at their tiny blue-white sun. But now and again they did turn from it to regard each other, and, of course, they would always turn to regard any singular occurrence that might take place. But there would not be many happenings, because there was—again—nothing on Aiolo but the plants.

"—BUT ARE WE?"

THE best newspaper editorial so far published on the atomic bomb observes, cogently, that "The atomic bomb is here to stay—but are we?"

It seems to most science-fictionists that the answer to that is that the human race is here to stay; the individuals are too small, too numerous, and too scattered to be found and destroyed by atomic bombs. But that, as things stand, President Truman was wrong in saying that the next war using atomic bombs would end our civilization. The civilization is already ended. Unless we can produce an adequate defense against the atomic bomb within the next five years, there is a very real chance of an atomic

war breaking out in about that length of time.

Why?

Basically, our whole cultural pattern is rooted in the firm and oft-proven belief that a good big nation can lick a good little nation any day in the week, and twice on February 29th. Japan made a try at disproving it; for that imprudent gesture she was rewarded with the world's first atomic bomb, after a severe preliminary mauling with battleships, aircraft, submarines, and assorted technological weapons she could match neither in quantity nor quality.

The San Francisco United Nations charter

accepted that as a basic fact of life; the Council of the Big Five has special prerogatives for the perfectly obvious reason that a good big nation can lick a good little nation.

Once upon a time a good big man could lick a good little man any time, so a man who stood four feet eleven had to be very careful of his manners in talking to a man who stood six feet four, and made his living playing the anvil chorus with a twenty-pound hammer.

Then somebody invented the revolver—and the six-foot-four man had to have just as good manners to the four-foot-eleven man as the little man needed around the big man. The good little man was just exactly as deadly as the good big man. Our present social set-up involves the background proposition that extremely deadly, handy weapons make all individuals equal.

The atomic bomb will make all nations approximately equal in size. Belgium, for example, is several sizes larger than Russia or the United States; Belgium owns more of the world's known uranium. At present, Belgium doesn't have atomic bomb plants, but Belgium is a highly industrialized, and thoroughly technical nation. When Belgium—or Holland, Switzerland, Yugoslavia, Czechoslovakia or what have you—gets the atomic bomb, it will be perfectly evident that she joins the ranks of the Big Five. If Czechoslovakia or Holland gets the answer before Russia by some chance, Holland or whatever will, obviously, be more deadly as a world power than Russia. The small, not the big, nation will, therefore, belong to the select group of ruling powers.

The situation will, of course, last for a very short time. In a few years, every nation will have it. At the moment, our relations with Argentina are strained. There are a lot of Nazis in Argentina; the Nazis had done a great deal of atomic research. Suppose one of them comes up with the answer, and equips Argentina. How would the United States foreign policy with respect to Argentina be altered?

Again, that's temporary. The situation as of about five years hence will probably find all the industrialized nations of the Earth adequately equipped.

That will call for a total reorganization of thinking. The smallest nation so equipped must be handled with the same high regard that is displayed toward the largest; each is equally deadly. If the hot-headed, emotional, illogical, greedy, egoistic, pride-

ful members of the human race succeed in weathering that time of crisis without somebody, somewhere, getting overexcited and shooting off a few rocket-driven robot atomic bombs at somebody else, it will be a Grade-A miracle. Imagine the chances of world peace if each of the Balkan nations is equipped with atomic bombs! And, be it remembered, no "big" powers exist under that regime; the big powers can no more arbitrate the differences than the bystanders in the saloons of the old West could arbitrate a gun fight. That just leads to bystanders getting plugged.

A real defense against the atomic weapon is needed. It has been reported that the Crosby Foundation has developed a method of detonating the bomb at a distance. Maybe so. The next question is, of course, whether or not a screening can be developed that blocks that detonation effect, and so allows the bomb to penetrate.

There is also this point; presumably, if there were danger of atomic bombardment, the devices which detonate atomic bombs would be turned on, as a precautionary measure. It has been stated that this device—whatever its nature—can detonate the atomic bomb, even when its exact location is not known. It suggests a broadcast energy wave which can set off the bombs.

Now if I were planning an attack on an enemy nation which had such a bomb defense, I would ship a few hundred cases of canned milk, or raw silk, or toys, or something—with the one case full of an atomic bomb. Then when the war tension reached the proper pitch, and he turned on his bomb-detonator, he would save me the trouble of rocketing atomic bombs over to his cities. His defensive detonator would set off the pre-planted atomic bombs in the warehouses in his cities. It just seems to me that would be a fairly practical way—

In any case, there remains the use of the radioactive dusts produced in quantities, as by-products, in the operation of a uranium pile. Those can't be detonated, and in their own awful way, they are even more ghastly than the atomic bomb—which is, at least, a quick, clean death for nearly everyone affected.

Subterranean cities are futile. The uranium reaction is reasonably potent, but another one, discovered in 1930 by Lord Rutherford, is nearly twice as powerful, pound for pound, and uses cheap lithium and ordinary hydrogen. It won't start until

a temperature of several million degrees is reached, but the Hiroshima U-235 bomb would make an excellent primer to start the more violent explosion. If a city plays hard to get, the bombs will simply be stepped up to get it.

By spending \$2,000,000,000, the United States bought the atomic bomb. Other nations can get it much more cheaply, now the spade work has been done. Probably two new battleships would buy a functioning uranium pile.

The secret of the atomic bomb is not an American, or an Anglo-American secret; it's Nature's secret—and Nature is a blabbermouth. She'll tell anyone who asks the right questions.

For approximately \$1,000,000,000 the nation's scientific forces could, unquestionably, develop and perfect an adequate defense against the atomic weapon—which would, incidentally and automatically, be a perfect defense against *all* weapons now known. It would have to be. It would, to stop the atomic bomb or atomic dusts, have to be able to stop every single individual projectile, even when attacking at a speed of six to ten miles per second.

One great difference between the atomic weapons and all previous weapons is in that matters of statistics. The kamikaze attacks were defeated, because the Navy knocked down ninety-eight per cent of the attackers—an overwhelming statistical victory. But with atomic weapons, only one statistic is of importance: "Did *one* get through?"

Unfortunately, there is only the remotest sort of a chance that Congress might appropriate that billion dollar fund—somewhere around the chance that a glass of water will boil when an ice cube is dropped in due to an inverted distribution of molecular motions. The general Congressional attitude is that we alone have it, we spent \$2,000,000,000 getting it, the war's over, and why should we, the sole possessors, spend \$1,000,000,000 more nullifying our most valuable military weapon?

The defense can be found, surely. The trouble is that the defense will never be found once atomic war starts. Ordinarily, hindsight is not very helpful, but better than nothing. This time, hindsight is apt to be impossible. Thought processes are so difficult for corpses.

The United States is world-famed for its tendency to wait around practically defenseless, and then make a wild and wonderful scramble to build highly effective defense and attack weapons.

There won't be any United States twenty-four hours after the next war starts. We'll be Target number 1, because every one knows that the United States is extremely dangerous to would-be world conquerors. Particularly if she's given time to prepare.

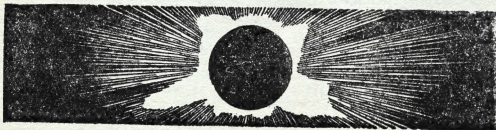
So long as the Government continues to muzzle the professional scientists who know the atomic score—to avoid frightening the people into doing something about it, perhaps—the general public and even Congress is not going to get an adequate understanding of the danger the world faces.

If the United States continues on its present "wait and see" attitude, the nation born in 1776 will cease to exist before 1966, and quite probably before 1956.

The period of the world's great danger will come when two adjoining nations, age-old rivals, start making demands backed up with atomic weapons. Czechoslovakia and Poland, for instance—and God help anyone who tries to mediate, and so gets both sides mad.

By the way, did you notice the awe-struck comments of the radio and newspapers on General Marshall's report of a forty-five thousand pound and one hundred thousand pound bomb? Of six hundred mile-an-hour bombers? The Hiroshima bomb equalled forty million pounds of TNT, and V-2 goes eighteen hundred miles an hour already.

You'd think intelligent news commentators could see that proportionality.



PELMANISM

For All Times and Circumstances

PELMANISM has stood the test of time. During the last half century, in peace and war, in times of prosperity and of depression, it has helped and encouraged men and women in all the affairs of life. Now in this time of reconstruction and planning for the future two facts stand out against a background of evidence—the large number of serving and ex-service members of H.M. Forces enrolling for the Pelman Course, and the continued support of those in civilian occupations.

This increasing demand proves the creative and re-creative value of Pelmanism. Minds under stress and strain are sorely in need of restful recreation and soothing stimulus. Pelmanism gives all this and more. It is the way to clear thinking and calm but determined action under all circumstances. You cannot be harassed by anxieties, fears and worries, or feel helpless, mute and fearful in times of sudden emergency when imbued and buoyed up by the friendly personal guidance of Pelmanism. Take the Course to-day and possess those self-reliant attributes permanently enjoyed by over half a million grateful Pelmanists.

A True Philosophy

Pelmanism is a true philosophy of living for ordinary sensible people who wish to make the best of themselves at all times and under all circumstances. The Pelman Institute has won and held its unique position through all wars and worries, trials and tribulations, during the last half century. To-day Pelmanism is appreciated as much as ever. The test of time has proved the Power of Pelmanism and in these exceptional and ever-changing times it plays its part in the National Effort.

Personal and Individual

Pelmanists are not left to make the applications themselves. An experienced and sympathetic instructional staff shows them, in exact detail, how to apply the principles of Pelmanism to their own circumstances and aspirations. Thus every Pelman Course is an individual Course. Over and over again our correspondents say, in effect, 'I feel that this Course was prepared for me, and me only.' Substantially this is so, for the instructional notes and letters of advice are entirely personal to the individual; they are for him, or her, only.

*Remember—Everything you do is
preceded by your attitude of mind*

What Pelmanism Does

Pelmanism brings out the mind's latent powers and develops them to the highest point of efficiency. It banishes such weaknesses and defects as :

Pessimism	Indecision
Procrastination	Timidity
Indefiniteness	Aimlessness
Mind-Wandering	Depression
Forgetfulness	Lack of Ideas
Weakness of Will	Inferiority

All these defects and weaknesses can be completely overcome by a course of Pelmanism.

Then there are those opposite qualities which are valuable in every aspect of living :

—Self-Confidence	—Initiative
—Concentration	—Resourcefulness
—Observation	—Courage
—Judgment	—Will-Power
—Organising Power	—Reliability
—Optimism	—Presence of Mind

You can develop and strengthen all these by a course of Pelmanism.

—H.M. FORCES—

All serving and ex-service members are now entitled to receive the complete Pelman Course, with full tuition and guidance, at

One-Half Usual Fee

Immediate application should be made for Special Enrolment Form (Services).

The present dominant aim for every man and woman must be to show a courageous, confident, well-equipped mental front. This assured, then all else will be achieved, and the world has no more proven method than Pelmanism to attain this end.

The Pelman Course is fully described in a book entitled *The Science of Success*. The Course is simple and interesting and takes up very little time; you can enrol on the most convenient terms. The book will be sent to you, gratis and post free, on application to :

PELMAN INSTITUTE

(Established over 40 years)

**210 Norfolk Mansions, Wigmore Street,
London, W.1**

Readers who can call at the Institute will be welcomed.

PELMAN (OVERSEAS) INSTITUTES : NEW YORK, 271 North Avenue, New Rochelle. MELBOURNE, 396 Flinders Lane. JOHANNESBURG, P.O. Box 4028. DURBAN, Natal Bank Chambers (P.O. Box 1489). DELHI, 10 Alipore Road. CALCUTTA, 102 Clive Street.

Join the Well-Paid Ranks of the I.C.S. TRAINED MEN

MANY THOUSANDS MORE ARE URGENTLY NEEDED. PREPARE YOURSELF FOR A BETTER POSITION AND BETTER PAY.

Ambitious men everywhere have succeeded through I.C.S. Home-Study Courses. So also can you.



We offer you the benefit of our 55 years' matchless experience as the creative pioneers of postal instruction.

If you need technical training, our advice on any matter concerning your work and your career is yours for the asking—free and without obligation. Let us send you full information about I.C.S. Training in the subject in which you are specially interested. **DON'T DELAY. Make ACTION your watchword.**

The successful man DOES to-day what the failure INTENDS doing to-morrow. Write to us TO-DAY.

—USE THIS COUPON—

(Please Stamp on Directed Envelopes)

INTERNATIONAL CORRESPONDENCE SCHOOLS LTD.

Dept. 18, INTERNATIONAL BUILDINGS,
KINGSWAY, LONDON, W.C.2

Please send Special Free Syllabus on _____

Name _____ Age _____

Address _____

Addresses for Overseas Readers

Australia : 140 Elizabeth Street, Sydney
Egypt : 49 Shara Helwan, Cairo.
India : Lakshmi Buildings, 54 Panchsathi Palace Road, Fort, Bombay.
New Zealand : 93 Maxwell Street, Wellington.
South Africa : 45 Waterman Street, Cape Town.

The I.C.S. offer Courses of instruction in a wide range of subjects, including :

Accountancy	Joinery
Advertising	Journalling
Aero Engine Fitting	Machine Designing
Aero Fitting and Rigging	Machine-Tool Work
Aeronautical Engineering	Marine Engineers
Aeroplane Designing	Mechanical Drawing
Air-Conditioning	Mechanical Engineering
Aircraft Eng. License	Mine Surveying
Architectural Drawing	Mining, Electrical
Architecture	Motor Engineering
Auditing	Motor Mechanics
Boiler Engineering	Motor Vehicle Elec.
Book-keeping	Municipal Engineering
Building Construction	Office Training
Building Specifications	Oil-Power, Electric
Business Management	Plastics
Business Training	Plumbing
Carpentry	Quantity Surveying
Chemical Engineering	Radio Engineering
Chemistry, Inorganic and Organic	Radio Service Eng.
Civil Engineering	Ry. Equip. & Running
Clerk of Works	Refrigeration
Colliery Examiners	Sales Management
Colliery Chairman	Salesmanship
Commercial Art	Sanitary & Domestic Engineering
Concrete Engineering	Scientific Management
Cotton Manufacturing	Securities Work
Crane Engineer	Sheet-Metal Work
Draughtsmanship (note which branch)	Short Story Writing
Drawing Office Practice	Steam Power Design
Electric Power, Lighting, Transmission and Traction	Structural Steelwork
Electrical Engineering	Surveying (note which branch)
Eng. Shop Practice	Telegraph Engineering
Fire Engineering	Telephone Engineering
Fuel Technology	Tool Designing
Garage Management	Water-Power Elec.
Gas-Power Design	Welding, Gas & Electric
Heating and Ventilation	Woodworking Draw'g
Hydraulic Engineering	Woodies Manufacturing
Hydro-electric	Works Engineering
	Works Management

EXAMINATIONS—

Technical, Professional, Preparation

Send your Exam. on Coupon for Free Syllabus

Special Terms for members of A.M.S., P.M.S. and (discharged) disabled members of A.M.S. Armed Forces.

